

Summer 2019
Vol. 22, No. 5

Theaters Are Trying Short Versions of GS Films

This article is a collaborative effort of the Giant Screen Cinema Association and LF Examiner. When we discovered that we were coincidentally both working on articles on the same subject, we agreed to join forces. The result, below, is a combination of the GSCA blog post by Marlene Janetos, based on her interviews and a survey of theaters by the GSCA, and additional reporting, interviews, and surveys conducted by LF Examiner's editor.

by Marlene Janetos and James Hyder

In the first decade of the giant-screen business GS films were largely experiential, designed to show off the novel medium with lots of dynamic point-of-view shots. Their running times averaged about 23 minutes, which provided enough stimulation for most viewers (and too much for an unfortunate few prone to motion sickness). A perfect example is **MacGillivray Freeman Films' To Fly!** (1976), the signature film for the **Smithsonian's National Air and Space Museum** in Washington, DC, which is only 27 minutes long.

In 1980 there were only 18 GS theaters, and only half of them were in museums, science centers, or planetariums. The other half were commercial standalone theaters or in theme parks.

By 1991, institutional theaters outnumbered all commercial venues by two-to-one and remained the majority segment until digital projection was introduced in 2008. As museums became the dominant players in the GS market, films became more explicitly educational, and their running times increased. By the mid-1990s they had mostly settled into a range of 35–45 minutes, which provided ample time for educational content, engaging storytelling, and a few “wow” moments. Almost as importantly, it allowed enough time to empty and refill the theater while the projectionist rewound and rethreaded the 15/70 film projector, so that shows could start at the top of the hour.

In those early days, creating alternate versions of GS films, while not unheard of — separate dome versions of some films were produced — was complicated and expensive.

Among the first institutions to experiment with shorter versions specifically was the Smithsonian. According to **Toby Mensforth**, who managed the Smithsonian's three IMAX theaters from 2001 to 2011, the motivation came from his experience of converting NASM's Einstein Planetarium to digital fulldome.

Opening in 1976, NASM has been the most popular museum in the world for most of its existence, and its Lockheed Martin IMAX Theater has likewise been one of the world's most popular IMAX theaters for most of that time. For long stretches of the year, particularly in spring
(see **SHORT VERSIONS** on page 6)

IMAX Laser Dome

An Editorial by James Hyder

In 2008 **Imax Corporation** launched its first digital projection system, which used two xenon-powered 2K projectors. Shortly after a demonstration in a New York multiplex at the 2008 conference of the **Giant Screen Cinema Association**, I wrote:

“The IMAX digital system projects an image that is bright, with good contrast and slightly better resolution than other digital projectors. But every IMAX digital theater I've been in has also had a noticeable “screen-door effect,” that is, a visible dark grid pattern separating the pixels. It is particularly noticeable in lighter image areas, and is less visible the farther you are from the screen. But even with my 53-year-old eyes, I was able to see it from the front half of most of the five theaters I've been in.

“But IMAX — real IMAX — presents reality. Not reality as seen through a screen door.” (tinyurl.com/LFXscreendoor)

A few years later I wrote,

“What separates the giant-screen experience from all other media (except perhaps fulldome shows) is its immersiveness and ability to give audiences the impression that they have been transported to another place. Chief among the factors in achieving this effect is image quality: the pictures must be bright, clear, and sharp, but the greatest of these is sharpness.” (tinyurl.com/LFXimmerse)

The new IMAX laser dome projection system, introduced last year and installed
(see **EDITORIAL** on page 14)

Premiering this Summer
Secrets of the Universe
See page 16.

Inside LF Examiner

The Biz	4–5
GSCA Conference Preview	2
Birth of GS Industry, 50 Years Ago	2
In Production	12–13
Premiering	16
Bookings Data	17–21
Directory	22–23
Classified Ads	24
Shorts	24

Founded 1997 as MaxImage!

Summer 2019
Vol. 22, No. 5

Editor/Publisher
James Hyder

Associate Editor
William Hyder

Circulation Manager
Thomas Jacobs

Published eight times a year by
Cinergetics, LLC, and distributed
by first class mail.
Printed in the USA.

ISSN 1532-5504

Subscriptions: US\$447
Outside North America: US\$497
All payments must be made in
US funds.
Substantial discounts are
available for multiple subscrip-
tions to the same address.

Editorial Offices
1413 Eastbrooke Way
Marietta, GA 30066 USA
Tel: 770-693-9755
editor@LFexaminer.com

©2019 by Cinergetics, LLC
All rights reserved. No portion
of this publication may be repro-
duced by any means without
written permission of the copy-
right holder.

Copyright Warning and Notice
It is a violation of U.S. and
international copyright laws to
reproduce all or part of this
publication or its contents by
any means. The U.S. Copyright
Act imposes liability of up to
\$150,000 per issue for such
infringement.

Information concerning illicit
duplication will be gratefully
received.

Individuals and organizations
wishing to reprint articles from *LF
Examiner* must obtain written
permission from us in advance.

The opinions of contributors are
not necessarily those of *LF
Examiner* or its parent company,
Cinergetics, LLC.

Trademarks referred to in *LF
Examiner* are the property of their
respective owners.

GSCA Conference Preview, Sept. 10-13

The **Giant Screen Cinema Association** will host its annual conference and trade show in Victoria, BC, Canada, Sept. 10-12, followed by a Dome Day in Vancouver, BC, on Sept. 13. The main conference will feature screenings of new films, films in production, and films in development, professional development sessions, a technical session, and an awards ceremony. Dome Day will include screenings of six new films on the dome.

In Victoria, film screenings will be held at the **IMAX Victoria** in the **Royal BC Museum**, and conference sessions will be at the nearby **Fairmont Empress Hotel**. In Vancouver, screenings will be held in the IMAX Dome theater at **Science World British Columbia**. Attendees wishing to attend Dome Day can take a ferry between the cities.

Twenty-one new films will be presented, several of which are rough or fine cuts of unfinished films, short versions of previously released titles, or films that have been presented as new films at previous conferences. (GSCA allows producers to present films as new films at two meetings, not counting rough/fine cuts or short versions.) New films being presented in complete form for the first time in Victoria, and their producers, are:

Angkor: Lost Empire of Cambodia Helio Projects Asia
Asteroid Impact IMAX Entertainment
Back From the Brink: Saved From Extinction ROAM
Dino Dana: The Movie Sinking Ship Entertainment
Expedition Chesapeake Whitaker Center Productions
Secrets of the Universe The Stephen Low Company
The Son of Bigfoot 3D nWave Pictures Distribution
There will be clips from 17 films in production and presentations on 11 films in development.

Conference sessions

Four professional development sessions will cover topics including Giant Screen 101, the results of the GSCA's Theater Operations Survey, a "town hall meeting" on the industry's stagnant business models, and LED displays for flat screens and domes.

The Technical Session will feature a live demonstration of audio mixing for 12-channel sound; a presentation on the restoration of **Stephen Low's** 1988 classic *Beavers*; a tutorial on the pros and cons of shooting 3D versus converting in post, and on Dome Day, a presentation on "Turning the Dome Into a Time Machine."

For more information about the conference, and to register, visit giantscreencinema.com.

The Birth of the GS Industry, 50 Years Ago

In the summer of 1969, engineer **Bill Shaw** was feverishly working on constructing a new type of film projector. He was trying to adapt a transport system developed for 35mm film by Australian inventor **Ron Jones** to a new, and much larger, film frame: 15 perforations of 70mm film. The innovative "rolling loop" was needed to advance the huge film frame gently through the projector without tearing through the film's sprocket holes, as any conventional film transport mechanism would.

Starting at slower speeds, Shaw made numerous modifications to the design to prevent the film from tearing or jamming in the mechanism as he gradually ramped up the frame rate. It was slow, painstaking, laborious work.

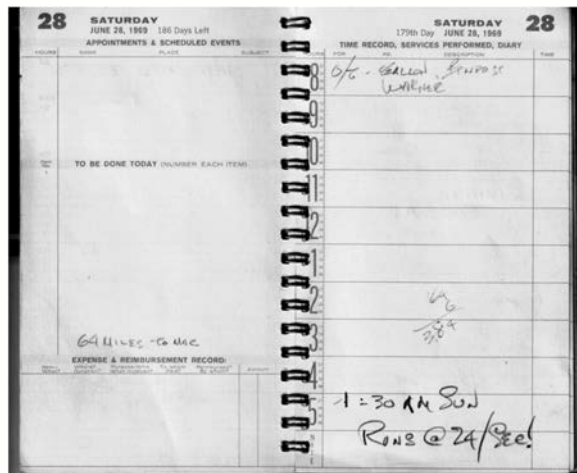
Finally, early in the morning of Sunday, June 29, 1969, he got the prototype of what would be called the IMAX projector to run smoothly and consistently at 24 fps, triumphantly noting the achievement in his datebook: "1:30 AM Sun. Runs @24/Sec!"

Shaw would do a great deal more work over the coming months to complete the car-sized projector, while his colleagues **Graeme Ferguson**, **Roman Kroitor**, and **Robert Kerr** were making the first IMAX

film and designing the first IMAX theater to be built in Osaka, Japan, in time for the opening of Expo '70 on March 15, 1970.

In a very real sense, the start of the giant-screen industry can be traced to that Sunday morning in Shaw's workshop when it became clear that his new projector would actually work.

(Image of Shaw's notebook courtesy of his son, Scott Shaw.)



GSCA Conference Schedule, Sept. 10-13

Monday, September 9: Pre-conference Day

Time	Event	Location
8:00 am - 8:00 pm	Registration and Information	Fairmont: The Library
8:00 am - 10:45 am	Board Meeting	Conference Centre: Sidney
11:00 am - 12:45 pm	Committee Meetings	Conference Centre: Sidney
	Event Planning	Sidney
	Member Services	Colwood
12:30 pm - 1:00 pm	Snacks for committee members	Pre-function area
1:00 pm - 2:45 pm	Committee Meetings	Conference Centre: Colwood
	Technical	Sidney
	Industry Development	Colwood
3:00 pm - 4:00 pm	GDTC meeting (invitation only)	Colwood
3:00 pm - 9:00 pm	Film rehearsals	Royal BC Museum
3:00 pm - 6:00 pm	Giant Screen 101 (All welcome.)	Salon B
4:00 pm - 5:30 pm	3D Film Interest Group (invitation only)	Sidney
5:00 pm - 6:00 pm	Distributors' Interest Group (invitation only)	Colwood
6:00 pm - 7:00 pm	First Timers' and New Members' Reception (invitation only)	Crystal Ballroom
	Evening on your own	

Tuesday, September 10: Conference Day 1

Time	Event	Location
	Breakfast on your own	
7:30 am - 8:00 am	Walk to Royal BC Museum	
8:00 am - 4:00 pm	Registration and Information	Royal BC Museum
8:00 am - 8:30 am	Film 1: <i>Micro Monsters</i> *	Royal BC Museum
8:30 am - 9:15 am	Film 2: <i>The Son of Bigfoot 3D</i>	Royal BC Museum
9:15 am - 10:00 am	Film 3: <i>Secrets of the Universe</i>	Royal BC Museum
10:00 am - 10:15 am	Break	Royal BC Museum
10:15 am - 11:05 am	Film 4: <i>Expedition Chesapeake</i>	Royal BC Museum
11:05 am - 11:50 am	Film 5: <i>Touch the Stars</i>	Royal BC Museum
11:50 am - 12:05 pm	Projects in Development	Royal BC Museum
12:05 pm - 12:25 pm	Trailers	Royal BC Museum
12:25 pm - 2:00 pm	Lunch on your own	
12:25 pm - 2:00 pm	Awards rehearsal (invitation only)	Carson Hall
2:00 pm - 2:50 pm	Film 6: <i>Apollo 11: First Steps Edition</i>	Royal BC Museum
2:50 pm - 3:40 pm	Film 7: <i>Superpower Dogs</i>	Royal BC Museum
3:40 pm - 5:40 pm	Films in Production	Royal BC Museum
5:40 pm	Walk to Fairmont	
6:30 pm - 7:45 pm	GSCA Achievement Awards Presentation	Carson Hall
7:45 pm - 9:00 pm	GSCA Achievement Awards Reception	Carson Hall

Wednesday, September 11: Conference Day 2

Time	Event	Location
	Breakfast on your own	
8:30 am - 12:30 pm	Registration and Information	Carson Hall
8:30 am - 9:00 am	Presentations of Findings from the GSCA Theater Operations Survey	Carson Hall
9:00 am - 10:00 am	LED Displays as Alternatives for Flat & Dome Screen Projection	Carson Hall
10:00 am - 10:15 am	Break	
10:15 am - 11:45 am	"We Need to Talk..." A Town Hall Meeting on the Giant Screen Industry's Business Models	Carson Hall
11:45 am - 1:00 pm	Member meeting and lunch	Carson Hall
1:00 pm	Walk to Royal BC Museum	
1:15 pm - 6:30 pm	Registration and Information	Royal BC Museum
1:15 pm - 3:00 pm	Technical Session	Royal BC Museum
3:00 pm - 3:45 pm	Film 8: <i>Sea Lions: Life by a Whisker</i> **	Royal BC Museum
3:45 pm - 4:35 pm	Film 9: <i>Great Bear Rainforest</i>	Royal BC Museum
4:35 pm - 4:50 pm	Break	Royal BC Museum
4:50 pm - 5:35 pm	Film 10: <i>Into America's Wild</i> **	Royal BC Museum
5:35 pm - 6:00 pm	Film 11: <i>Asteroid Impact</i> †	Royal BC Museum

6:00 pm - 6:50 pm	Film 12: <i>Back From the Brink</i>	Royal BC Museum
7:00 pm - 8:00 pm	Reception	To be announced
	Evening on your own	

Thursday, September 12: Conference Day 3

Time	Event	Location
	Breakfast on your own	
7:30 am	Walk to Royal BC Museum	
8:00 am - 1:30 pm	Registration and Information	Royal BC Museum
8:00 am - 8:25 am	Film 13: <i>Conquest of the Skies</i> *	Royal BC Museum
8:25 am - 8:50 am	Film 14: <i>Backyard Wilderness</i> *	Royal BC Museum
8:50 am - 9:35 am	Film 15: <i>Hidden Pacific</i>	Royal BC Museum
9:00 am - 3:00 pm	Trade Show Exhibitor Setup	Carson Hall
9:35 am - 9:50 am	Break	Royal BC Museum
9:50 am - 10:40 am	Film 16: <i>Dino Dana: The Movie</i>	Royal BC Museum
10:40 am - 11:25 am	Film 17: <i>Ancient Caves</i> **	Royal BC Museum
11:25 am - 12:10 pm	Film 18: <i>Angkor: Lost Empire of Cambodia</i> **	Royal BC Museum
12:10 pm - 12:25 pm	Break	
12:25 pm - 1:10 pm	Film 19: <i>Out of Bounds</i> **	Royal BC Museum
1:10 pm - 1:50 pm	Film 20: <i>Beavers: The Director's Cut</i>	Royal BC Museum
1:50 pm - 3:00 pm	Euromax luncheon	TBD
1:50 pm - 3:00 pm	Lunch on your own	
3:00 pm - 7:00 pm	Registration and information	Carson Hall
3:00 pm - 7:00 pm	Trade show with cocktails and hors d'oeuvres	Carson Hall
7:00 pm - 9:00 pm	Dinner on your own	
7:00 pm - 11:00 pm	Trade Show Exhibitor Teardown	Carson Hall
7:00 pm - 8:00 pm	GSCA Board Meeting	Sidney
9:00 pm - 12:30 am	Post Post Party (all welcome)	District Nightclub, 919 Douglas Street

Friday, September 13: Dome Day

Time	Event	Location
6:30 am	Depart for Dome Day	Fairmont lobby
6:30 am	Buses load at the Fairmont Empress Hotel	
6:45 am	Buses depart and transfer to Swartz Bay	
7:30 am	Check into terminal	
8:00 am	Ferry to Tsawwassen	
9:35 am	Buses depart for Science World	
10:45 am	Buses arrive at Science World	
11:00 am - 5:00 pm	Registration and Information	Science World BC
11:00 am - 12:00 pm	Film 1: <i>Apollo 11: First Steps Edition</i>	OMNIMAX
12:00 pm - 1:00 pm	Film 2: <i>Back From the Brink</i>	OMNIMAX
1:00 pm - 2:00 pm	Lunch	Green Roof Terrace, level 3
2:00 pm - 2:15 pm	Presentation: Turning the Dome into a Time Machine	OMNIMAX
2:15 pm - 3:15 pm	Film 3: <i>Superpower Dogs</i>	OMNIMAX
3:15 pm - 4:15 pm	Film 4: <i>Great Bear Rainforest</i>	OMNIMAX
4:15 pm - 4:30 pm	Break	
4:30 pm - 5:30 pm	Film 5: <i>Volcanoes: Fires of Creation</i>	OMNIMAX

* Short version

** Rough/fine cut

† Extended footage

Schedule subject to change.

THE BIZ

NEWS

IMAX Q2 results

In late July, **Imax Corporation** posted its financial results for the second quarter ending June 30, 2019. In that period the company reported a profit of \$11.4 million (\$0.19 per share) on revenues of \$104.8 million, compared to a profit of \$7.6 million (\$0.12 per share) on revenues of \$98.3 million in the second quarter of 2018. For the first six months of 2019 the company earned \$19.7 million (\$0.32 per share) on revenues of \$185.0 million, compared to \$16.1 million (\$0.25 per share) on revenues of \$183.3 million in the first half of 2018.

In the second quarter Imax signed deals for 54 new theaters and 19 upgrades, compared to 40 new theaters and 98 upgrades in the same period last year. The company installed 27 new theaters and upgraded eight in this year's Q2, compared to 30 new and one upgrade in 2018's. Backlog stood at 612 theaters as of June 30, 2019. The total number of IMAX theaters worldwide was 1,541 as of that date, 1,445 in multiplexes, 81 in institutions, and 15 in what it calls "commercial destination theaters."

Houston to upgrade to D3D laser

The Wortham Giant Screen Theatre at the **Houston Museum of Natural Science** in Texas will celebrate its 30th anniversary in September by closing temporarily to give the theatre an extreme makeover.

According to vice president **Charlotte Brohi**, the first of two phases of renovation begins on Sept. 3 and will include new larger rocker seats with cup holders, new flooring, and a new high-gain silver screen. "We will also be replacing the original IMAX sound system with a premium QSC 5.1 audio system which, with over 25,000 watts of power, which will represent a significant upgrade over the current system."

Phase 1 will also include a new stage area for enhanced lecture capabilities, new LED lighting, and show automation, with reopening set for late October or early November.

Phase 2 will start in the first quarter of 2020, and will include the installation of new **Barco** DP4K-36BLP laser projectors by **D3D Cinema**, which converted the theater from IMAX film to its existing xenon-based Barco projection system in 2012. Brohi says the projectors "have the best speckle performance of anything currently on the market and we believe they will offer substantially more light on screen over a long period of time." A Barco Alchemy server, a state-of-the-art Ushio/Kooptech 3D glasses-cleaning machine, and accessibility upgrades will also be installed next year.

St. Louis switching to IMAX laser

The **Saint Louis Science Center** in Missouri closed the OMNIMAX Theater on July 29 for its largest renovation since opening in 1991. The 79-foot (24-meter) IMAX Dome theater is being converted from 15/70 film to the new IMAX laser system for domes (see article on page 1), getting a new sound system and **Spitz** NanoSeam dome in the process. Other updates include new seats, an enhanced stage area, additional accessibility services, and enhancements to the theater lobby.

The theater is expected to reopen in November.

IMAX deals in China and US

South Korea's **CGV Holdings Limited** and **Cineworld Group PLC** in the UK have signed deals with **Imax Corporation** for new IMAX theaters in China and the U.S., respectively.

CGV will install 40 more IMAX theaters in its multiplexes in China, bringing the total the chain has opened or signed for over the past 15 years to 170. As of Jan. 1, 2019, there were 77 CGJ IMAX theaters in operation in South Korea, China, and Vietnam.

Most of the new theaters will be equipped with the single-projector "commercial" IMAX laser system the company introduced last year. CGV operates a total of 3,900 screens at 530 locations in seven countries.

Cineworld, parent company to **Regal Entertainment Group**, signed a deal to install 15 new IMAX commercial laser systems in Regal multiplexes across the U.S. The new deal brings Cineworld's total of IMAX screens in operation or under contract to 170. Cineworld acquired Regal in 2017, making it the second-largest theater chain in the world, with over 9,500 screens in ten countries.

ScreenX, 4DX expanding in US

South Korea's **CJ 4DX** is partnering with **Christie** to locate new sites in the U.S. for ScreenX and 4DX theaters. ScreenX uses auxiliary projectors to expand imagery from a theater's main screen to its side walls, providing a "270-degree panoramic movie-watching experience," according to a press release. 4DX uses motion-synchronized seats with wind, fog, rain, lightning, snow, bubble, vibration, and scent effects to "enhance the on-screen visuals of action-packed blockbusters."

No locations or exhibitions partners were specified in the announcement. There are currently 200 ScreenX venues, mostly in Asia, with 17 in North America.

In 2014, about two years after ScreenX was introduced, Netherlands-based **Barco** announced "Escape," a similar system featuring three full-size digital screens. Barco scrapped Escape in 2018 after installing 36 systems, primarily because insufficient content was available, the classic "chicken and egg" problem facing any new exhibition format.

In an unrelated move, sports and live entertainment conglomerate **AEG** and French exhibitor **CGR Cinemas** plan to introduce ICE ("immersive cinema experience") in North America, after a rollout in France in 2017. ICE mounts large LED panels on the side walls of a theater to display colors and images related to the image on the main screen, somewhat like ScreenX, which uses projectors for a similar effect. The first installation is set to open at the **Regal L.A. Live** theater in Los Angeles in the fall.

THE BIZ

PERSONNEL

Imax hires Jafar, Rhim, Toney

Imax Corporation has hired **Mark Jafar** as its global head of corporate communications, replacing **Amanda Collins**, who left the company in March after only nine months. Jafar will oversee all communications and media relations across all business and entertainment divisions of the company. According to a press release, he will also “support domestic and global efforts to communicate the company’s brand narrative, strategic partnerships and more.” He will report to president **Richard Gelfond**.



Mark Jafar

Jafar comes to Imax from BuzzFeed, where he was VP of corporate communications. Before that he was at Viacom and MTV.

Imax also appointed **Mo Rhim** and **James Toney** as senior vice presidents in its entertainment division, where they will “focus on strengthening the company’s core business through creative partnerships and programming that leverage its platform.



Mo Rhim

They will also explore initiatives to enhance the company’s direct relationship with its consumers, and apply data and insights to drive growth.” Both will report to **Megan Colligan**, president of Imax Entertainment.

Hackett joins Sinking Ship

Jennifer Lee Hackett has joined Toronto-based **Sinking Ship Entertainment** as its manager of museum and non-theatrical sales. The company is producing **Dino Dana: The Movie**, which will be presented at a new film at the **Giant Screen Theater Association’s** conference in Victoria, BC, Canada, in September (see page 2.)

Hackett joined the giant-screen business in 2002, when she became sales and mar-

keting manager for **Jordan’s Furniture** in Boston, MA, shortly before the innovative retailer launched the first of two IMAX theaters located in its stores. Starting in 2004 she held a similar position at the **Smithsonian Institution** in Washington, DC, in support of three IMAX theaters. In 2007 she moved to **National Geographic**, working in its GS film distribution organization until 2011. She left the GS business for a few years, but rejoined it in 2015 when she became director of sales and distribution for the Americas at nWave Pictures, a position she held until 2018.

Hackett holds a Bachelor’s degree in Hospitality Sales and Meeting Management from Johnson & Wales University in Providence, RI.

She tells *LFX*, “I am thrilled to be back in the GS industry, which I love. Working for Sinking Ship Entertainment enables me to combine my two careers: education and entertainment. We are thrilled to be bringing **Dino Dana: The Movie** and the companion experiences to museums and science centers worldwide for young children and their families to enjoy.”



Jennifer Lee Hackett

In Memoriam: Abdullah Alshtail

Abdullah Alshtail, theater manager at the **Scientific Center of Kuwait**, died on June 11 after being diagnosed with cancer. He was 39 years old.

Alshtail was one of the center’s first employees, starting as an IMAX projectionist in 2000. In a statement, the center said, “Through hard work, determination, and personal sacrifice, he was promoted to IMAX theater manager. He was a natural when it came to technology and was al-



Abdullah Alshtail

ways passionate about the film industry. He was instrumental in initiating the upgrade of the TSCK IMAX Theater to the laser system and leading the TSCK team behind the upgrade. He was also behind the opening of TSCK recording studio, where the Arabic versions of many giant screen films are being recorded.”

He is survived by his wife and four children.

In Memoriam: Mike Moodispaugh

The following was submitted by Phil Crabtree, general manager of the National Naval Aviation Museum.

It is with heavy hearts that we at the **Naval Aviation Museum Foundation** in Pensacola, FL, announce the passing of our good friend and colleague **Mike Moodispaugh**. Mike died suddenly at work on July 10, 2019, of apparently natural causes. He was 40 years old and is survived by ten brothers and sisters and a large extended family.



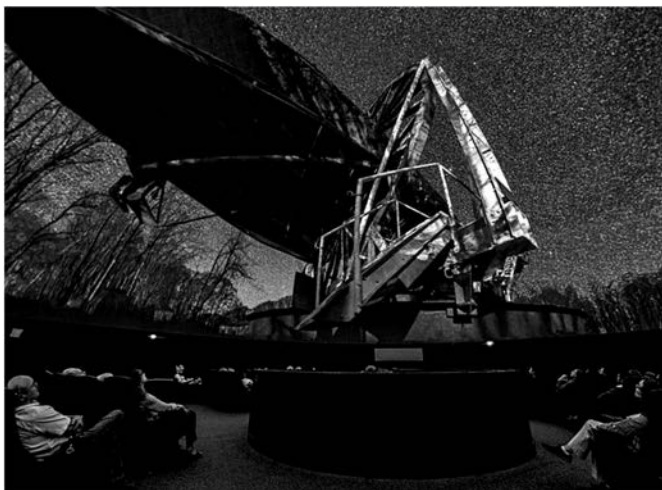
Mike Moodispaugh

Mike was a 22-year veteran in the industry, hired as an IMAX projectionist in 1997 at just 19 years old. He was one of the first few projectionists at the newly opened theater at the National Naval Aviation Museum. He later became the chief projectionist and eventually was promoted to technical operations manager.

Mike and his staff won the IMAX Best Booth Award presented by **Imax Corporation** at the **Giant Screen Cinema Association’s** 2011 conference in Austin, TX. Working with **D3D Cinema** and **Christie**, he was instrumental in the museum’s installation of the world’s first 4K 2D giant-screen laser projector system in an institutional theater in 2016.

Mike loved music, animals, and his beloved Philadelphia Eagles. He forged many long-lasting friendships with fellow employees and technicians in the giant-screen and attractions industry. He will be dearly missed by all who knew him.

Theaters Are Experimenting with Short Versions



The Einstein Planetarium at the Smithsonian's National Air and Space Museum

(from **SHORT VERSIONS** on page 1)

and summer, the theater operates at nearly 100% capacity. It has never started shows only on the hour, but has always packed them as tightly together as practical, with turnarounds averaging less than ten minutes.

In terms of size, capabilities, and programming, the Einstein Planetarium is one of the top planetariums in the world, but within NASM it has suffered by comparison to the IMAX, and before the digital conversion by **Sky-Skan** in 2002 it was rarely filled to capacity.

Its first digital planetarium show, *Infinity Express*, was subtitled “A 20-minute tour of the universe,” half the length of previous shows. It doubled the capacity of the 220-seat venue virtually overnight.

Across the National Mall from NASM, the Samuel C. Johnson IMAX Theater had been added to the **National Museum of Natural History** in 1999. Its location within the museum and its design, particularly its front-of-house box office and holding area, were not as optimal as those of the NASM IMAX, and there was often not enough time to sell all 487 seats for a show before it started.

Recalling the experience with the Einstein Planetarium, Mensforth contacted **Don Kempf** at **Giant Screen Films**, and raised the possibility of creating shorter versions of some features. Kempf tells *LF* that although re-editing 15/70 films in the

analog era was “very expensive” — he estimates it cost around \$25,000–\$30,000 per title in 2007 — “because the Smithsonian wanted it, we did it.” The Johnson Theater successfully ran short versions of *Wild Ocean* (2008) and several other titles for many years. (The theater was closed in 2017. See *LF Examiner*, September 2017.)

With the arrival of digital projection a decade ago, creating and programming short versions of GS films became significantly cheaper and simpler, and producers and theaters have increasingly been experimenting with them. Now, more than 50 GS features, originally released in 40–45-minute versions, are available in shorter versions from at least eight GS distributors.

The **Giant Screen Cinema Association's** spring 2019 Theater Operations Survey asked theater directors if they played short versions in their GS theaters. A total of 49 theaters responded to the question, with

78% saying they do not, and 22% saying they do. (The full results of the survey will be presented at the GSCA conference in September.)

LF Examiner's independent survey obtained replies from 30 theater managers, one-third of whom said they currently run short versions or have previously done so.

Although the general proviso that every theater's circumstances are unique applies, two reasons for programming short versions seemed to predominate: to save visitors' time and to suit younger viewers.

Saving time

Large museums have found that visitors prefer to spend a smaller portion of their total visit time in the GS theater. The **Museum of Science and Industry** in Chicago has 2,000 exhibits on display in 75 major halls. Its 74-foot (23-meter) former IMAX Dome theater was converted to digital projection by **D3D Cinema** in 2017.

Gil Perez, until recently MSI's director of film and guest operations, implemented a 30-minute schedule more than a year ago and deems the switch an outright success. “We surveyed our guests and responded to their feedback,” says Perez. “Guests told us that the number-one rea-



The Museum of Science and Industry in Chicago.



The National Museum of the U.S. Air Force in Dayton, OH.

son for not purchasing our large-format films was because they took too much time out of their visit. We responded by switching from a show every hour to a show every 30 minutes. The positive results were immediately apparent.” Attendance was up 65% in the first year and revenues have also increased, since MSI did not change the ticket price when switching to shorter films. The change in length wasn’t announced, and visitors haven’t questioned it.

Dean Fick, technical manager for theaters at the National Air and Space Museum notes a similar perception: “The majority of people who visit us are short of time. They want to see a film, but a 50-minute show takes up too much of their limited time, in their view.” The museum’s Lockheed Martin IMAX Theater started running short versions in 2012, and now includes a mix of 25- and 45-minute shows in its daytime schedule, with two-hour Hollywood features at night. Prices for the daytime shows are the same, regardless of length.

Another major aviation museum, the **National Museum of the U.S. Air Force** in Dayton, OH, experimented with short versions, according to manager **Mary Bruggeman**. She tells *LFX*, “Our facility is large, close to one million square feet [93,000 square meters], with no admission fee. Time was an issue for our visitors.” She made short versions 100% of the schedule in her 400-seat digital theater for

one summer, and saw an increase in revenues. “But with limited mission-related films available in shorter versions, we have switched back to the 45-minute films.”

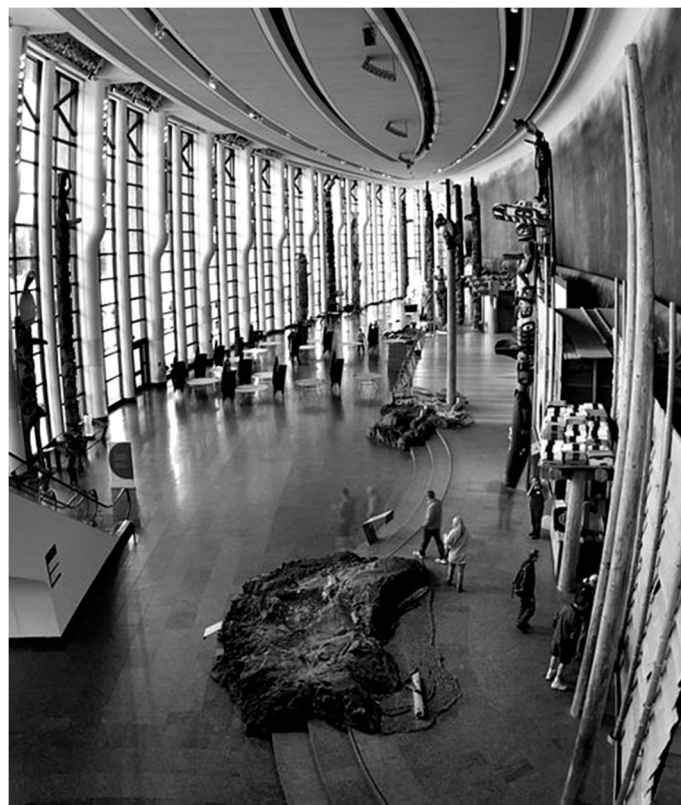
The **Canadian Museum of History** in Gatineau, QC, has a 300-seat theater that is convertible between flat- and dome-screen presentations, and started showing short versions two years ago. Marketing director **Michele Canto** says, “Our GS theatre is now included in the price of museum admission. Visitors typically spend three hours in our museum and are more likely to attend shorter screenings, which allows them more time to visit our numerous exhibitions.” Although the schedule now includes a mix of lengths, she tells *LFX*, “Our preference would be to only show short versions. I wish there were more of them!”

Shorts for kids

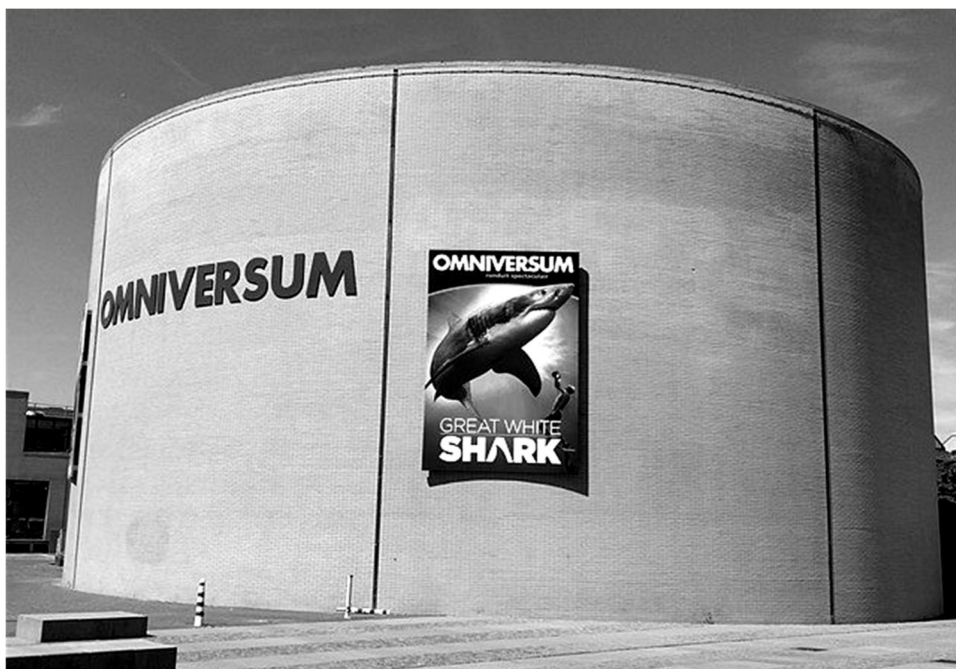
Another significant driver for short versions is school groups and families with young children. The **Swedish Museum of Natural**

History in Stockholm introduced shorter versions as a way to invite young audiences to experience *Cosmonova*, its 15/70 IMAX Dome theater. **Caroline Borgudd**, the museum’s marketing communications manager, says that it can be challenging to find giant-screen content for younger audiences. The short versions are positioned to attract families with children between 3 and 6 years old. *Cosmonova* screens a short documentary as the first show on Saturdays and Sundays, and during holiday breaks.

The theater is currently showing *Animalopolis* (2008), produced by **Graphic Films** as a 25-minute children’s matinee, and the shows have been instrumental in bringing a broader audience into the theater. “Recently we received feedback and interest from our general audiences on the shorter films,” says Borgudd. “Some adult visitors and visitors with older children have purchased tickets to *Animalopolis* just to see a film — clearly not an ideal movie for an older target group. We are examining this feedback now and are researching availability of shorter length films that would appeal to a broader de-



The Canadian Museum of History in Gatineau, ON.



Omniversum in The Hague, Netherlands, is a commercial IMAX Dome theater with a 15/70 film projector.

(from **SHORT VERSIONS** on page 7)
mographic.”

The **San Diego Natural History Museum** in California has a 300-seat theater with a 25x45-foot (8x14-meter) screen and a digital 3D projection system installed in 2009. In a 2011 survey of members, a majority of respondents preferred 20-minute films over 40-minute versions, so the museum added them to the schedule.

Alexis McKee, the museum’s AV/IT director, says, “A large percentage of our audience groups include younger children. The shorter films work for those with limited time or who have a shorter attention span, which might be why they are popular for families with young children.”

The museum offers both standard and shorter documentaries, but does not show Hollywood films. Because shows in the theater are included in museum admission, there are no issues relating to price differences or value. About 45% of museum visitors see a show.

As always, there are exceptions. **Holly Wentworth** at the **Fernbank Museum of Natural History** in Atlanta, GA, tells *LFX* that she started showing short versions early this year, targeting not children but people in the 25–45 year-old range with once-a-month, adults-only Friday night events. She explains, “Our combo ticket

during the days for long versions are optional and go for \$27. For the short versions shown in the evenings we are forcing a combo ticket and only charge \$19.95. We believe it has actually increased [visitor perception of value], as with the shorter versions people have more time to take part in the other activities simultaneously going on throughout the event, which

they couldn’t do when we were running the longer versions.”

Reasons against

Despite these apparent success stories, the majority of respondents to both surveys are not running short versions. Yet. Several said that that was only because they are still running film (for which few short versions are available), adding that they expected to try them once they convert to digital. But others saw no advantage to offering shorter films.

For commercial venues such as **Omniversum** in The Hague, Netherlands, and **Branson’s IMAX Entertainment Complex** in Missouri, the logic is clear: the film is the primary offering, so cutting it makes no sense. The same is true for smaller institutions that don’t have vast exhibit halls to occupy their visitors’ time.

But even at major museums, some managers prefer the full-length versions of GS documentaries. **Richard Morrison** at Australia’s **IMAX Theatre Melbourne** and **Paul Wild** at Canada’s **IMAX Victoria**, both located in large museums, agree that full-length features work best for them.

A theater manager at a major U.S. museum who asked not to be identified told us, “The jury is still out, in my opinion. I don’t think storytelling is as good with the



The IMAX Theatre Melbourne in Australia is associated with Museum Victoria

shorter length. On the other hand, visitors don't have as much time to spend in our buildings as they did a few years ago. So we might gain capture rate initially but lose fans over time. I would consider a trial at some point when I have an exhibit and film combo that requires higher throughput in the theater."

Consultant **Paul Fraser** of **Blaze Cineworks** echoes most of these pros and cons, and feels that "20-minute films might be the perfect solution for a few theaters in certain markets." He also wonders how much audience research has been done on the question. "It may take some time for the impact to be known, and not just from a single survey of guests at one or two theaters. I worry that theaters could harm their business if the perceived value for money is not there, or if the shorter running time makes the stories feel less substantial or not as satisfying, especially for adults. Showing nothing but 20-minute films could restrict the appeal

of the GS theater to the 'young family' demographic, and theaters could lose their perceived relevance with adults with older kids or without kids. Anything that lessens the general appeal of the theater obviously can't be good for the industry."

Then there's the case of institution with multiple theaters. At Vancouver's **Science World at Telus World of Science**, **Ingrid Lae** explains, "We don't really see the need for shorter shows, as we offer them, and shows geared to younger visitors, in our other, smaller theater."

Similarly, for ten years **Kathryn Chapman** at Philadelphia's **Franklin Institute Science Museum** ran short versions of select GS titles in the museum's small

digital 3D theater, although never in the 350-seat Tuttleman IMAX Dome Theater. In programming the digital theater she was "careful to choose movies that worked better in their edited versions. Not all GS movies feel complete in only half the running time. We eventually phased out regular [film] programming [in the digital theater] to push audiences into IMAX and save labor costs from a theater playing similar content."

She adds, "I strongly feel that for a lot of movies we're doing our audiences a disservice by showing the shorter versions. We showed *Mysteries of the Unseen*

a different title for the short version of *Ancient Caves* so it's not confused with the full-length film. There is simply no way to convey the same story in such a short run time. I am concerned that someone will see *Ancient Caves* in a short version and post a review on the Internet which affects whether people in other cities decide to see a totally different version. I think producers ought to seriously consider renaming shorter versions." (MacGillivray has already done this with the 45-minute version of *Apollo 11: First Steps Edition* (2019), to distinguish it from *Apollo 11*, the 93-minute theatrical version that was released to conventional and IMAX multiplex theaters two months earlier. For Chicago, MFF made an even shorter, 25-minute version.)

Bird also worries that "people will get wise to the fact that they are spending \$12 on a ticket to a 24-minute film, and attendance will go down or ticket prices will have to drop."

Stephen van Vuuren, producer, director, and writer of *In Saturn's Rings* (2018), has a similar view. "Editorially, there can only be one good version of the film: the best cut. Any other version is going to be at best 'different,' and more likely 'less engaging.'" He adds, "It is ultimately simply a way to salvage funds in a dying, close-minded giant-screen marketplace. If your project is very successful, you have the funds to create it. If your project is fair to middling, you do the ROI and decide."

Susan Todd, writer and producer of *Backyard Wilderness* (2018), complains, "It's actually a bit of torture for filmmakers to take a longer film and cut it into a 20-minute version. You have to focus on

(see **SHORT VERSIONS** on page 10)



The Franklin Institute Science Museum in Philadelphia, PA.

World (2013) in the digital 3D theater because it benefited from the 3D format. However, the film was too good to cut in half, so we showed the full version, at the same price, while also showing 20-minute titles."

The producer's perspective

Some filmmakers agree with Chapman's view. **Oceanic Research Group's Jonathan Bird**, who is currently producing and directing *Ancient Caves* for a 2020 release by **MacGillivray Freeman Films**, pulls no punches: "Let me start by saying that I am definitely *not* a fan of this. I don't think that the audience gets the same film in that format, and in fact we are considering

(from **SHORT VERSIONS** on page 9)

the strongest parts of your story and let go of other less important themes and scenes.” But, noting that some theaters now *only* book short versions, she concedes, “It makes sense to make one because you can distribute to more theaters.”

Digital Crossing Productions’ Michael Dalton-Smith says that if the funding deal with the **Giant Digital Theater Consortium** hadn’t required it, making a short version of *Volcanoes: Fires of Creation* (2018) “would not have been a priority for me. If you have a topic that will get enough leases then it makes sense, but that is also time and effort away from the next project.”

That doesn’t mean it’s easy. “You have to be pretty ruthless in the material you cut. Luckily for us, *Volcanoes* was a very segmented, film so it was probably easier than most to cut down and still have the story remain coherent. You have to tighten each segment without going into too much detail. So in the end all it will be is more a taste or tease rather than a complete story.”

Wendy MacKeigan, CEO of **SK Films**, agrees that short versions can pose significant creative challenges. With its last several productions SK has tried to plan for the short version at the film’s conception and write the scripts for both at the same time. She notes that having a strong story at 25 minutes may require a unique line or two of dialog to keep the story cohesive.

Interestingly, Todd takes a different approach. “We don’t spend a lot of time thinking about what the short version will look like when we’re in production. We wait until we’re finished with the long version. Then it helps to know what museum programmers think are the most im-

portant themes to use in a short version. That makes it easier to cut down and make the right choices.”

Patty Collins, director of global sales for **MacGillivray Freeman Films**, says, “We have offered shorter versions of three films we distribute from other producers, but we have not yet developed shorter versions of MFF films for wide distribution. We believe a 40- to 45-minute film is a great length to establish a strong story and emotional connection with audiences, but are open to what our clients want moving forward.”



Backyard Wilderness was produced by Archipelago Productions and distributed by SK Films.

Other producers are more positive about short versions.

As noted above, Giant Screen Films has been making short versions available to theaters for years. Kempf note that, “as a distributor, we are making films in all lengths, providing theaters with whatever length they prefer to meet their needs,” says Kempf. “All future large-format films that we produce will be available in both 40 minutes and 25 minutes.”

Kempf adds that there is a “misperception that the films are being ‘cut in half.’ Actually it’s a decrease from 36–40 minutes to 23–25. So about two-thirds of the original length. And while some films are better at 40 minutes, others are arguably better with 10–15 minutes

trimmed.”

He tells *LFX* that although he expects nearly all GS films will continue to be made at 40-minute run times, the fact that booking shorter versions is trending upwards is significant in an industry that is notoriously resistant to change. He also points out that non-GS digital theaters, which are very common in smaller museums, almost always prefer the shorter titles.

BIG & Digital offers short versions when possible. President Tina Ratterman says, “We definitely find having short and traditional run times available for all of our content important. Having more run times and formats does complicate the content storage and delivery process, especially when we add new languages for each run time.”

Ratterman says that after getting requests from theater clients, producer/director **Rich Hoffmann** tried to edit his film *Watermelon Magic* (2013) to 23 minutes, but couldn’t do it. He said it felt like he cut the heart out of it. He compromised with a 30-minute version, down from the original 40.

On the other hand, Ratterman feels that **Productions Thalie’s** *Dragons* (2013) is “great at 25 minutes” and pairs well with *Harry Potter* or *Game of Thrones* themed exhibits and events.

K2 Studios has been producing shorter versions since 2004, starting with *Fighter Pilot: Operation Red Flag*. “The main concern with shorter versions has been perceived value by the guest,” says **Ed Cappelletti**, K2’s senior VP of distribution. “In major markets where tourists make up a large percent of guests, there hasn’t been value price resistance. Also, as more museums fold their giant-screen experiences into general admission, shorter showtimes

work perfectly and help to increase capture rates.”

Jonathan Williams, commercial manager at **BBC Earth** in London, says that he has produced short versions of all BBC’s GS titles, adding that creating 11-minute 4D attraction films has made them “familiar with the dynamics of quicker turnaround times and how shorter content works for particular venues.” He believes that quality doesn’t have to suffer in a shorter version. “It’s very important that the 20-minute version still delivers a memorable, high-quality experience for the audience and that they perceive it as good value for money. It shouldn’t feel like an abridged or lesser version of the 40-minute film.”

Financial results

For theaters, as noted above, in the right venues and with the right titles, the financial and other benefits can be significant. But many theaters — perhaps most — may always rely on standard-length films as the core of their schedules.

For producers the costs of creating short versions are modest, and the increased revenues have generally been worth the effort, if not overwhelming. Dalton-Smith estimates the low end at \$15,000 to \$25,000, but “much more if you’re required to rework music and sound.” K2’s Capelle says that because the company uses in-house staff, with few hard costs like adapting narration and music, the total is “not substantial.”

Van Vuuren says short versions can generate “a solid ROI, yes, but not groundbreaking. The best venues always seem to want the longer version. The lower-rent, low-paying venues are the primary drivers for the shorter version.”

The BBC’s Williams says short versions “represent a good return on investment for us. They have grown our addressable market and opened up alternative revenue

streams in non-core markets and territories. Overall, they are still a small fraction of our total revenues, though.”

For distributors, the results vary. **Cosmic Picture’s Antonietta Monteleone**, president of film distribution, says that only 5%–6% of Cosmic’s leases are for shorter versions, mainly in theme parks. Big & Digital’s Ratterman puts the number at 10% for GS theaters, but 50% for planetariums, although most giant full-dome theaters want the 40-minute version. And **Mark Bretherton** of Australia’s **December Media** reports that “short versions represent about 20% of the bookings so far. The highest grossing lease for *The Story of Earth* [2018] has come from a theater showing the 24-minute version.”

You will need to determine the availability of shorter films that are appropriate for your mission and audience. You can meet with distributors at the GSCA International Conference and Trade Show in September to discuss available titles and booking options. While there, you can also talk with theater colleagues about their decisions to schedule, or not schedule, shorter films. Find out the challenges as well as the benefits.

Blaze Cineworks’ Fraser urges all parties to “keep experimenting. Producers and distributors are the theaters’ partners in these experiments, and I hope they work together to measure box office results and audience feedback to arrive at the best approach.”

Although the screening of short versions of GS films is still far from universal, and may never be the most common practice, it is gaining in popularity at many theaters for many reasons. As December Media’s Bretherton puts it, “Audiences are changing, and while a short film is a different beast from a 40-minute film, just because

that’s the length we’ve always made doesn’t mean that’s the length they will always be.”

Marlene Janetos is vice president of visitor services, marketing, and communications at the Museum of Discovery and Science in Ft. Lauderdale, FL, a member of the GSCA’s board of directors, and co-chair of its Member Services Committee.

James Hyder has worked in the giant-screen industry since 1984, including managing the IMAX theater at the National Air and Space Museum, then the most popular giant-screen theater in the world. He has been editor and publisher of LF Examiner since founding it in 1997.



Stephen Low’s Fighter Pilot was one of the first films to be released in a shorter version.

Do your research

Theaters thinking about running short versions should do research to determine if they will be welcomed by their audiences. Survey educators. Examine your local audience demographics. Will you have issues with value perception?

Does your area have a lot of regulars who come mainly for the theater experience? If so, standard documentaries may be preferable. They may also be the best choice if your exhibit experience doesn’t require a great deal of time.

On the other hand, if you have a very large facility, a large percentage of tourists with time restrictions, and/or you often show Hollywood films, shorter versions may work for you.



* New listing.

All films are 3D unless noted; underlined titles are 2D.

Updated information is printed in bold.

Unless noted, all films run about 40 minutes.

Beavers: The Director's Cut *

A re-release of Stephen Low's 1988 classic, with four minutes of additional material. *Stephen Low Company*; distributor: *Stephen Low Company*; director: *Stephen Low*; producers: *Stephen Low, Alex Low, Pietro Serapiglia*; DP: *Andrew Kitzanuk*. Narrator: *Earl Pennington*. 34 minutes. 2D. Release: Sept. 16.

Angkor: Lost Empire of Cambodia

Definition Films, Helio Projects Asia; distributor: *K2 Studios*; director: *Murray Pope*; producers: *Christopher Zaryc, David Gross, Murray Pope*; DP: *Earle Dresner*; script: *Murray Pope, Paul Phelan*; executive producers: *Ed Capelle, Mark Kresser, Nick Robinson, Kulikar Sotho, John Weiley*. Release: Fall 2019.

- Filmed in Cambodia earlier this year.
- Principal photography is complete, post production is under way.

Back From the Brink

Sean Casey Productions; distributor: *Cosmic Picture*; director, DP: *Sean Casey*; producers: *Jen Casey, Sean Casey*; script: *Mose Richards*. Release: Fall.

- Principal photography is complete, post production is under way.

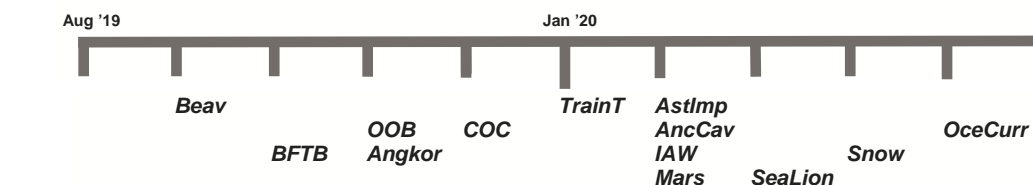
Out of Bounds

Definition Films, Wild Pacific Media; distributor: *K2 Studios*; director: *Caspar Mazzotti*; producers: *Nick Robinson, David Gross*; DP: *Earle Dresner*; script: *Murray Pope, Paul Phelan*; executive producers: *Mark Kresser, Robert Kresser, Jeff Cutler*. Cast: *Torah Bright, Jeremy Jones, Sammy Carlson*. Release: November.

- February-April: Filmed in Lake Tahoe, Revelstoke, BC, and Alaska.
- Principal photography is complete, post production is under way.

Colours of China

Making Movies/China Intercontinental Communica-



tion Company/Gebrueder-Beetz Filmproduktion; distributor: *tba*; executive producer: *James Heyward*. Release: December.

Train Time

Stephen Low Company; distributor: *Stephen Low Company*; director, script: *Stephen Low*; producers: *Pietro Serapiglia, Stephen Low*; executive producer: *Paul Globus*. 2D. Release: January 2020.

- Principal photography is complete, post production is under way.

Asteroid Impact

Imax Corporation, Huahuang Pictures; distributor: *Imax Corporation*; director: *W.D. Hogan*; producers: *Jini Durr, Phil Groves*; DP: *Sean MacLeod Phillips*; script: *Phil Groves*; executive producers: *Anna Chi, Phil Groves*. Cast: *Len J. Phillips, Steve Tsang, Bernadette Janssen*. Release: Feb 14, 2020.

- Principal photography is complete, post production is under way.

Ancient Caves

Oceanic Research Group; distributor: *MacGillivray Freeman Film Distribution*; director, DP: *Jonathan Bird*; producers: *Jonathan Bird, Art Cohen*; script: *Jonathan Bird, Art Cohen*; score: *Bruce Zimmerman*; executive producer: *Shaun MacGillivray*. Cast: *Dr. Gina Moseley, Dr. Larry Edwards, Brian Kakuk, Todd Kelly, Dr. Keith Tinker*. 2D. Release: February 2020.

- All photography is complete, post production is under way.
- November: Recording score with City of Prague Philharmonic Orchestra.
- Fine cut will be shown at GSCA conference in September.

Into America's Wild

MacGillivray Freeman Films; distributor: *MacGillivray Freeman Films*; director: *Greg MacGillivray*; producer: *Shaun MacGillivray*. Release: February 2020.

- May: Two-week shoot in downtown Charleston, SC, Cypress Gardens, and Middleton Place.
- October: Additional filming scheduled in Utah and the Sierra Nevada.
- Post production is under way.

Mars 1001 *

Space reporter *Miles O'Brien* guides you through the first human mission to Mars. *Mirage 3D*; distributor: *K2 Studios*; director, producer, writer: *Robin Sip*. Release: February 2020.

Sea Lions: Life by a Whisker

Definition Films; distributor: *K2 Studios*; producer: *David Gross*; script: *Amelia McCarten*; executive producer: *Mark Kresser*. Release: February 2020.

- Filmed recently in California and South Australia.
- Principal photography is complete, post production is under way.

Snow

Ouragan Films, nWave Studios; distributor: *nWave Pictures*; directors: *Cyril Barbançon, Jacqueline Farmer*; producer: *Jacqueline Farmer*; DPs: *Cyril Barbançon, Jacqueline Farmer*; script: *Philippe Chappuis*; score: *Franck Marchal*; executive producer: *Eric Dillens*. Release: Spring 2020.

- Filming has wrapped for the season, will resume near the end of the year.

Ocean Currents (wt)

Wild Pacific Media, Definition Films; distributor: *K2 Studios*; director: *Nick Robinson*; producers: *Nick Robinson, Electra Manikakis, Peta Ayers*; DP: *Jon Shaw*. Release: May 2020.

Dino Dana: The Movie *

An action-packed dinosaur adventure that follows 10-year-old Dana as she tries to solve a dino experiment.

Sinking Ship Entertainment; distributor: *Sinking Ship Entertainment*; director: *J.J. Johnson*; producer: *Eric Beldowski*; DP: *George Lajtai*; script: *J.J. Johnson, Christin Simms*; score: *Michael-Paul Ella*; executive producers: *J.J. Johnson, Blair Powers, Christin Simms*. Cast: *Michaela Luci, Saara Chaudry, Nicola Correia-Damude, Amish Patel*. 2D. Release: June 2020.

Tenet *

An action epic from director *Christopher Nolan* evolving from the world of international espionage, shot entirely on 15/65 and 5/65 film. To be released on 15/70 and 5/70 film in select theaters.

Syncope; distributor: *Warner Bros.*; director, writer: *Christopher Nolan*; producers: *Christopher Nolan, Emma Thomas*; DP: *Hoyte Van Hoytema*; score: *Ludwig Göransson*; executive producer: *Thomas Hayslip*. Cast: *John David Washington, Michael Caine, Kenneth Branagh, Robert Pattinson*. 2D. Release: July 17, 2020.

- June: Principal photography began in Tallinn, Estonia, and will continue in six other countries.

Cool Cities (wt)

Definition Films, Wild Pacific Media; distributor: *K2 Communications*; director: *Nick Robinson*; producer: *David Gross*; executive producers: *Robert Kresser, Mark Kresser*. Cast: *Tim Jarvis*. Release: Fall 2020.

Einstein's Incredible Universe (wt)

Cosmic Picture; distributor: *tba*; director: *Daniel Ferguson*; producers: *Taran Davies, George Duffield, Daniel Ferguson*; script: *Daniel Ferguson, Mose Richards*; DP: *Reed Smoot*. Release: fall 2020.

Wild Wonders of China

Transcendent Media, Blue Sky Aerial & Specialist Filming; distributor: *tba*; director: *tba*; producers: *Peta Milan, Staffan Widstrand, Vicky Degerfeldt*; DP: *Peter Degerfeldt*. Release: fall 2020.

Wings 3D *

Dorsey Pictures, Archipelago Films; distributor: *SK Films*. Release: Fall 2020.

- May-June: Filmed migratory birds in North Dako-

Tenet

CoolCit
EIUWWOC
WingsDOA
Eleph
FeaDinJTTGMR
SSands
WingsuitIreland
SharkH BluWha

AntiITU SSea

ta, Nebraska, New Orleans, North Carolina.

Dinosaurs of Antarctica

Giant Screen Films; distributor: Giant Screen Films; director: David Clark; producers: Don Kempf, Deborah Raksany, Andy Wood; DP: Reed Smoot; script: Deborah Raksany, Andy Wood. Release: 2020.

Elephant

Wild Expectations, Ltd.; distributor: tba. Release: 2020.

Feathered Dinosaurs (wt)

Saint Thomas Productions; distributor: nWave Pictures. Narrator: James Faulkner. Release: 2020.

Journey to the Great Mayan Reef

Milbrand Cinema; distributor: tba; director, producer, DP: Lance Milbrand; editor: Dave Choice; score: Icarus Music. Cast: Kathleen Dudzinski, Eldon Bolton. Release: 2020.

– April-June: Filming topside and underwater in Belize.

Secrets of the Sands

Atlantic Productions; distributor: Serengeti Entertainment. Release: 2020.

Wingsuit Flyers

Grand Schema; distributor: K2 Communications; director: Christopher J. Scott; producers: John

Molli, Christopher J. Scott, Aschi Michel, Tom Fore; DP: Robert Hollingworth; script: Christopher J. Scott; executive producers: Rob Sharps, Doug Greenstein, W. Kyle Gore, Daniel Verbic, Tom McCollum. Release: 2020.

Shark Heroes*

A scientific journey of discovery into sharks' world of the deep abyss.

Distributor: K2 Studios; executive producer: Mark Kresser. Release: Early 2021.

– Filming began earlier this year.

Ireland

MacGillivray Freeman Films; distributor: MacGillivray Freeman Films; director: Greg MacGillivray; producer: Shaun MacGillivray. Release: March 17, 2021.

– Principal photography is complete, post production is under way.

Blue Whales

Oceanic Films; distributor: tba; director: Hugh Pearson; producers: Hugh Pearson, Myles Connolly; DP: Hector Skevington-Postles; writers: Hugh Pearson, Myles Connolly. Cast: Diane Gendron. Release: March 2021.

– March: Filmed blue whales in the Sea of Cortez.
– Filmed footage of bottle nose dolphins bow riding a blue whale, never previously filmed.

Antarctica: Into the Unknown

BBC Earth; distributor: SK Films; director: Fredi Devas; producers: Jonny Keeling, Myles Connolly; executive producer: Jonathan Williams. Release: 2021.

Secrets of the Sea *

The importance of marine biodiversity is revealed in the astonishing ways marine species interact. Howard Hall Productions, Oceanic Research Group; distributor: tbd; director: Jonathan Bird; producers: Howard and Michele Hall; DPs: Howard Hall, Jonathan Bird; script: Howard Hall; score: Alan Williams, Bruce Zimmerman; executive producers: Michele Hall, Christine Bird. Release: 2021.

DMR FILMS:

Title	Dist	Release
F&F Presents: Hobbs & Shaw	UP	8/2/19
IT: Chapter 2	TBD	9/6/19
Ad Astra	FOX	9/20/19
Joker	WB	10/4/19
Gemini Man	PAR	10/11/19
Maleficent: Mistress of Evil	WDPD	10/18/19
Frozen 2	WDPD	11/22/19
Jumanji: The Next Level	SONY	12/13/19
Star Wars: Episode IX	WDPD	12/20/19
The King's Man	FOX	2/4/20
Bond 25	MGM	04/04/20
Wonder Woman 1984	WB	6/5/20
Avatar 2	FOX	12/18/20



Director Stephen Low and camera assistant Linda Danchak filming Beavers in 1988.

The IMAX Laser Dome System

(from **EDITORIAL** on page 1)

in two theaters to date, with three more contracted, uses a single 4K projector to fill the dome screen. Like all IMAX digital systems, its images are very bright and have excellent color and contrast. The problem, once again, is resolution.

As demonstrated in these pages by **Gord Harris** last year (see *Nov.-Dec. 2019*), a 4K image projected on a dome with a diameter greater than 60 feet simply does not have enough pixels to provide eye-limited resolution at normal viewing distances.

In short, pixels are once again visible.

This is what I observed (with my now 63-year-old eyes) in visits to both of the theaters equipped with the IMAX laser dome system. Sitting in the center of the theater near the doghouse, I could see pixels in the center of the screen, particularly in light scenes, and when I sat further down or closer to the sides, they were even more noticeable. Today's DLP chips have a better fill ratio, meaning that the dark, non-reflecting portion of the image between the micro-mirrors is smaller than it was a decade ago, so they don't display as obvious a "screen-door effect" as the first-gen IMAX systems did. But the simple fact is that pixels are still visible, because they are too large.

Consider this: the width of each pixel of a 4K image on a 70-foot (21-meter) flat screen is approximately 0.21 inches (5.2 mm). Whereas the width of each pixel of a 4K image across a dome screen is (on average) is 0.32 inches (8.2 mm), 50% bigger. (The IMAX laser system also stretches the pixels vertically, making them even larger.) Put another way, the surface area of a giant dome is roughly twice that of a giant flat screen that is the same width as the dome's diameter. And to make matters worse, the audience is closer to the screen in a dome.

After the first demos of 4K projectors in 2011 and 2012, the GS industry agreed that 4K was just barely good enough to replace 15/70 film for flat screens. Accepting 4K for domes is like accepting 2K for giant flat-screen theaters, and the universal consensus from the introduction of digital

projection in 2008 was that 2K was inadequate for true giant screens.

The result is that the IMAX laser dome system's image simply doesn't have the crispness and level of detail of the 15/70 film it is replacing. Long shots with lots of details, like leaves on trees, are soft and indistinct, and don't provide the "you are there" experience that has been characteristic of the IMAX experience since 1970.

My reaction

I find this disheartening at two levels. First is that this seems to be a real step backwards for Imax Corporation. For a company that built its reputation on outstanding image quality to offer this clearly (in my opinion) sub-standard product seems to be a betrayal of all that Imax has stood for over the past 50 years. (Of course, one could argue that this is not the first time, that Imax did this with the introduction of its original 2K digital system in 2008. But that system was intended for multiplex theaters, most – but not all – of which were smaller than the true giant screens found in institutional GS theaters. Even so, it did find its way into more than a dozen museum theaters.)

With a very small market – there were only about 50 IMAX dome theaters when the company began research and development on its laser products, and fewer now – Imax could never have recouped the cost of designing a digital dome system from the ground up. It had no choice but to adapt its existing flat-screen laser product. The original configuration of the dome system announced in 2015 placed two IMAX first-gen "GT" laser projectors at the back of the theater. This design probably would have offered slightly superior image quality over a single-projector system: two projectors blended with a small offset would have reduced or eliminated the screen-door effect, even though the actual resolution would have been unchanged.

But after spending several years and a great deal of money on R&D, Imax ultimately had to scrap it in favor of the single-projector system rolled out last year. The

dual system for domes proved impractical for several reasons, including its high cost and the fact that retrofitting existing upper projection booths, or building new ones, turned out to be prohibitively expensive for many theaters.

The decision to settle on the single-projector system gives me the impression that Imax just threw up its hands and gave up, fobbing off a sub-par, Plan-B product on customers it no longer seems to care much about. One sign of Imax's attitude toward its institutional clients is that it has no plans to update or improve the laser dome projector, even though the contracts lock clients in to ten years of license and maintenance payments. Resolution, frame rate, dynamic range, and other characteristics will not be improved, even though suppliers like Christie and **Barco** routinely offer upgrades to enhance the performance of their existing systems.

And the IMAX GT laser system (in both domes and flat screens) is already behind the curve in terms of frame rate. It can only project 4K at 24 fps, even though most modern projectors from other vendors can project up to 120 fps. (The IMAX laser system can run at 48 fps, but only by dropping down to 2K resolution!)

In my view, Imax would have better served its dome customers, its own reputation, and the giant-screen industry in general if it had not released this system at all, and simply said, "We were unable to develop a dome system that meets our own standards for image quality."

The other development I find disappointing is that theaters are actually installing the IMAX laser dome system. I consider most of the managers whose institutions have made this decision to be my friends, and I don't want to appear to be second-guessing or criticizing them. I realize that it is easy for me to be idealistic. I don't have to weigh budgets, business plans, visitor perceptions, system reliability, service track records, board and donor preferences (or directives!), and a thousand other factors that complicate the process of selecting a new projection system.

As I've said, for me, resolution is the *sine qua non* of immersive cinema, and I find the resolution problem of the IMAX laser dome system to be glaring and significant. Others may find the laser dome system's resolution to be good enough, or they may recognize the problem but not feel it outweighs other advantages of the IMAX system. So I give my friends at those five museums the benefit of the doubt and assume they made the right decision for their theaters. But I'm still dismayed.

Of course, compromising on image quality is nothing new in the giant-screen world. Reportedly, the founders of Imax Corporation were initially quite reluctant to adapt their new 15/70 film format to dome projection for the second permanent IMAX theater, the Reuben H. **Fleet Science Center** in San Diego. In 1976, the IMAX theater at the **National Air and Space Museum** was crammed into a previously designed space, and could only fit a screen with a 1.5:1 ratio, instead of 1.33, which forced all future films to give up use of the tippity-top of the frame. Many decried 8/70 film as a sub-standard format for capture. And in the digital era, the majority of theaters that have converted to digital have abandoned the 1.33 aspect ratio in favor of digital's 1.9 frame. The IMAX laser dome system is yet another step along this path of compromising the GS experience, in my opinion.

Even though I now have 35 years in the GS business, I recognize that my opinions are hardly infallible. But I have spoken with several GS experts who have seen the IMAX laser dome system, and the majority, at least half a dozen, agreed with my perception of its inadequacies. As a journalist I prefer to remain neutral, and whenever possible to present the opinions of people with greater expertise in place of my own. Unfortunately, despite my urging, no one would speak on the record. However, two agreed to speak on condition of anonymity.

One long-time observer of the GS world told me, "Imax's digital dome system, while appearing reasonably bright with good color gamut, is at the low end of the spectrum when it comes to pixel resolu-

tion. A single 4K projector cannot cover a giant-screen dome with sufficient pixel density to be considered 'best-of-class.' Its unusual fisheye lens mapping attempts to increase pixel density towards the screen's 'sweet spot,' but as a result is not well suited to accurate image mapping. The system is robust and easy to use and will no doubt find favor with some theater directors; however those theaters wishing to maintain the high resolution of 70mm film will want to consider multi-projector solutions, or wait until an 8K version is developed."

Another GS veteran said, "Imax deserves credit for what they've achieved with a single-projector system. You have to admire its simplicity. Aside from resolution, it probably checks most of the boxes for dome theaters. Yet, for all its virtues, a 4K system for domes is not worthy of the IMAX brand. I have to wonder if competitive pressures will eventually lead Imax to develop an 8K 60 fps solution."

(Please note that these experts are entirely independent of each other, and did not know about the other's comments. The fact that they both mentioned the possibility of an 8K upgrade is coincidental and entirely speculative, and as far as I know does not reflect any inside information that Imax, or any other company, is planning a single-projector 8K system.)

The fate of GS theaters

As with films that fail to use the GS medium appropriately, every GS show presented with a projection system that doesn't live up to the highest standards of image quality degrades the reputation not only of that venue but of the whole industry. Sub-standard shows turn away visitors who hoped to be immersed and transported, but were instead let down by a lackluster presentation. Those people may not come back to that theater, and may never go to any other GS theater, either. And so the downturn in attendance across all our theaters continues.

But it doesn't have to.

Dome theaters now have many options. Multi-projector systems with 6K or 8K resolution, as offered by vendors like **D3D Cinema** and **Evans & Sutherland**, are as good as, or better than, 15/70 in terms of

resolution, and much better than the IMAX laser dome. It is true that, until fairly recently, some of those systems couldn't match the brightness or contrast of the best film presentations, but new laser projectors are changing that.

And there are several new technologies in the wings that promise even greater improvements. True high dynamic range (HDR) is now available for dome and flat-screen theaters. As we report on page 24, the Hayden Planetarium at the **American Museum of Natural History** in New York City has just upgraded to new Christie projectors that boast a nominal contrast ratio of 20,000,000:1, a vast improvement over conventional projectors' 2,000:1 range.

Perhaps the most exciting new development is direct-view screens that do away with projectors entirely and promise vastly greater brightness and contrast for both dome and flat-screen theaters. E&S' DomeX, and similar systems said to be coming from other vendors (*see May-June 2019*), could significantly change the landscape of dome theaters.

These and other options are available to the 38 dome theaters and 19 flat screens that are still only running film. This plethora of choices, and the expectation of even more options, may be among the reasons that only five domes have signed up for the IMAX laser dome system more than a year after it was introduced.

If the GS industry is to turn around the slow decline of the last few decades and remain a vital and relevant source of immersive, entertaining, and informative experiences, it must innovate and differentiate itself from other forms of out-of-home entertainment. The giant-screen experience has never been about "good enough." It has always been about being the biggest and best, and exceeding the ordinary.

LF Examiner welcomes, and will consider publishing, all responses to its editorials. editor@LFExaminer.com.

James Hyder founder, editor and publisher of LF Examiner.

Premiering This Summer

Secrets of the Universe

Produced by the **Stephen Low Company**, distributed by **K2 Studios**. Produced, written, and directed by **Stephen Low**. Executive producers: **Mark Kresser, Robert Kresser, Pietro Serapiglia**. Cast: **Manuel Calderon de la Barca Sanchez**. Narrated by **Simon Helberg**. Release: July 12, 2019.

"We are at the beginning of a period of unprecedented technological advancement, catalyzing a new age of scientific

discovery. Travel with us on this immersive giant-screen film as we explore the most exciting machines ever conceived by man, including the Large Hadron Collider and James Webb Space Telescope. See how these new experiments allow us to look deeper into our origins, and unveil the mysteries of dark energy, dark matter, and extra dimensions."



Secrets of the Universe

(from **SHORTS** on page 24)

He is currently working on a short film in the Magi format that will run in a custom-built 60-seat theater in the visitor center of the **New York Power Authority** in Utica, NY. The film will include location shooting as well as studio-based footage captured with a system he is developing that allows filmmakers to do real-time compositing, so that they can shoot on a green screen and see the backgrounds that will appear in the final film on their monitors as they shoot. Trumbull expects his system to greatly simplify production and post-production and drastically reduce costs.

He tells **LFX** that director **Ang Lee**'s next film, **Gemini Man**, starring **Will Smith** in a dual role, was shot at 120 fps and will be presented in the Magi format in many theaters. Lee's previous film, **Billy Lynn's Long Halftime Walk** (2016), was also shot at 120 fps, but was only shown at that rate in a handful of theaters for a limited time, because few projectors and servers were then capable of operating that fast. The capability is much more widespread now. Media reports suggest that hundreds of theaters may be able to show **Gemini Man** at 120 fps 4K 3D when it opens on October 11. (It is also set to run in IMAX theaters, but IMAX digital systems are only capable of 24 fps.)

Nolan's next film is Tenet

Director **Christopher Nolan**'s previously untitled summer 2020 film will be "an action epic evolving from the world of international espionage" entitled **Tenet**. It will star **Aaron Taylor-Johnson, Elizabeth**

DeBicki, Dimple Kapadia, Dunkirk star **Kenneth Branagh**, and Nolan regular **Michael Caine**. It will be released by **Warner Bros.** on July 17, 2020.

As with all of Nolan's most recent films, it will be shot entirely on a mix of 5/65 and 15/65 film, and will be released to an as-yet undetermined number of IMAX theaters on 15/70 prints. For his most recent release, **Dunkirk**, 39 15/70 film prints were struck. (There are 97 IMAX theaters that are nominally equipped with 15/70 projectors, although some are probably not in good enough condition to be brought back into service.)

Also in common with Nolan's practice, the story line of the movie is being kept closely under wraps.

NSF funds GSF's Dinosaurs

The **National Science Foundation**, through its Advancing Informal Science Learning program, has provided major funding for **Dinosaurs of Antarctica**, a giant-screen film being produced by **Giant Screen Films** for release in 2020. The film follows two NSF-funded research scientists who traveled to Antarctica in 2017-18, and features "unfamiliar dinosaurs and other discoveries new to science...and shares the incredible experience of field work at the bottom of the planet," according to a press release.

In addition to the GS film, the project includes a television special, a companion book, social media features, and educational programs. A companion museum exhibition, **Antarctic Dinosaurs**, is being developed by Chicago's **Field Museum**, the **Franklin Institute** in Philadelphia, and

David Clark Productions, among others.

Jackson Wild nominates 3 GS titles

Jackson Wild has nominated three GS titles for its annual media awards.

Backyard Wilderness has been nominated for Best Ecosystem Film and Best Engaging Youth Film, and **Great Bear Rainforest** and **Superpower Dogs** have also been nominated in the latter category.

The winners will be announced at a gala at the Jackson Wild Summit in Jackson Hole, WY, Sept. 26, 2109.

Jonze is IMAX artist in residence

Spike Jonze, director of *Being John Malkovich*, *Adaptation.*, and *Her*, has been named as **Imax Corporation**'s first artist in residence. According to a press release, in that role, Jonze "will serve as a driving creative and curatorial force... collaborating with [Imax] leadership to identify new creative opportunities and partnerships across its platform." **Megan Colligan**, president of IMAX Entertainment, said, "As more artists look to bring their work to life in the IMAX Experience, Spike's guidance will help us continue to evolve how we empower creators and engage audiences worldwide through our unique platform."

Variety reported that Colligan expects to name more artists in residence and "hopes that Jonze will help 'demystify' the experience of using IMAX's technology. 'It's important that we work hard to diversify voices and find all sorts of content that can satisfy all types of audiences.'"

Bookings: Summer 2019 by Film

694 bookings of 94 films in 165 theaters

These listings do not include Hollywood films shown in multiplex IMAX theaters. Those films are listed when they are shown in non-multiplex theaters, and conversely, non-Hollywood giant-screen films showing on multiplex IMAX screens are also listed.

Listings shown in **bold face** below are new or updated listings. The rest are unchanged from the previous

month's issue.

The data on the following pages are *not* warranted to be comprehensive or accurate in every detail, despite our best efforts to make them so. They have been compiled from theater surveys, distributors, the Web, and other sources.

We will make every effort to improve the thorough-

ness, and accuracy of these data. If your theater or film is not shown here, please get in touch with us to update our listings.

Where a date is not shown, it means that no date was provided by the source or, in the case of a closing date, that no date has been set, or that the run is indefinite.

The key to film abbreviations is on page 21.

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
A11FSE	Atlanta FMNH	6/1/19	5/30/20	AMJ	Orlando SC	2/24/18	6/30/20	DinoAliv	San Jose Tech	5/15/19	6/30/20
	Baton Rouge LASM	7/6/19	7/5/20		Pensacola NAM	5/17/19	5/16/20		Vancouver TWS	11/7/15	11/13/19
	Birmingham AL	5/19/19	5/18/20		Peoria RM	6/20/18	5/24/20		Victoria DCI	7/1/17	7/1/19
	Bradford	5/17/19	5/16/20		Pittsburgh CSC	11/17/17	5/18/20		Agascalientes	4/13/19	4/30/20
	Branson	6/14/19	6/13/20		Portland OMSI ET	2/16/18	5/16/20		Fort Worth	7/15/16	9/30/19
	Chantilly	5/17/19	5/17/20		Saint Paul SMM	5/17/19	8/4/19		Kansas City Sci	7/3/18	7/31/19
	Chattanooga TA	6/14/19	6/13/20		Seattle PSC 2	11/10/17			Portland OMSI ET	1/26/18	1/31/20
	Chicago MSI	5/24/19	5/23/20		Shanghai 3D STM	8/1/18	8/1/19		Fort Worth	5/28/16	9/30/19
	Cleveland	5/18/19	5/17/20		Sinsheim	5/17/19	5/16/20		Gatineau	7/9/18	3/20/20
	Columbus COSI	5/24/19	9/2/19		Speyer Dome	5/17/19	5/16/20		Kolkata SC	3/1/19	12/1/19
	Copenhagen TBP	6/12/19	6/11/20		Syracuse MOST	2/16/19	2/15/20		Mumbai NSC	3/1/19	12/1/19
	Davenport Put	7/13/19	7/12/20		Toronto OSC	10/6/17	11/16/20		Speyer Dome	1/1/15	12/30/19
	Dayton	5/25/19	5/24/20		Agascalientes	4/5/19	8/5/19		Austin TSHM	10/1/17	9/1/19
	Dearborn THF	6/17/19	6/16/20		Albuquerque NMMNH	7/16/18	7/15/19		Baltimore MSC	2/17/17	3/1/20
	Denver MNS	5/17/19	5/16/20		Austin Reg	3/1/19	6/1/20		Baton Rouge LASM	6/30/17	9/1/19
	Edmonton TWS	5/17/19	9/14/19		Baton Rouge LASM	5/25/19	5/24/20		Bradford	1/1/18	12/31/19
	Fort Worth	5/17/19	5/16/20		Cleveland	3/23/18	3/31/20		Chantilly	2/17/17	2/16/20
	Garden City	5/21/19	5/20/20		Dearborn THF	2/16/18	2/18/20		Charlotte DP	8/26/17	12/31/19
	Hague	5/21/19	11/21/19		Guayaquil	4/16/19	4/15/20		Cleveland	3/17/17	3/31/20
	Hamaoka	7/1/19	8/1/19		Hague	7/3/18	7/2/19		Davenport Put	2/24/17	3/31/20
	Hampton VASC	6/15/19	6/14/20		Hampton VASC	10/1/18	9/30/19		Dearborn THF	2/17/17	7/1/20
	Houston MNS	5/17/19	9/3/19		Harberg	4/6/19	4/15/20		Edmonton TWS	3/25/17	2/18/20
	Huntsville USSRC	6/1/19	5/30/20		Kapurthala	6/15/18	6/14/20		Fort Lauderdale	2/17/17	6/6/20
	Hutchinson	5/17/19	5/16/20		Lubbock SS	7/6/18	7/6/19		Fort Worth	2/17/17	9/1/19
	Indianapolis Imx	7/12/19	7/11/20		Lucerne STM	9/1/18	9/1/19		Garden City	12/1/17	12/31/19
	Kagoshima MSC	7/1/19	10/1/19		Memphis Pink	8/11/18	8/10/19		Grand Rapids Cel	7/15/17	7/31/20
	KSC 2	5/17/19	12/31/19		Mexicali	9/22/18	8/23/19		Hampton VASC	2/17/17	6/14/20
	London SM	5/17/19	5/16/20		Mexico City PAP	3/15/18	12/31/19		Harrisburg	2/18/17	3/1/20
	Los Angeles CSC	7/15/19	10/3/19		Monterrey Pap	3/15/18	4/15/20		Hastings	10/19/17	10/1/19
	Lucerne STM	5/24/19	8/18/19		Moscow Kin	4/15/18	4/16/20		Houston MNS	2/17/17	12/31/19
	Memphis Pink	5/25/19	5/24/21		Pensacola NAM	2/26/19	2/27/20		Indianapolis Imx	1/17/19	1/16/20
	Norwalk MA	5/17/19	5/16/20		Peoria RM	2/16/18	2/17/20		Jersey City	2/17/17	12/31/19
	Orlando SC	7/1/19	6/30/20		Pittsburgh CSC	1/25/19	1/24/20		Lansing Cel	6/30/17	7/31/20
	Pensacola NAM	5/17/19	5/16/20		Raleigh	9/1/18	8/31/19		London SM	9/4/17	8/31/19
	Peoria RM	5/25/19	5/24/20		San Jose Tech	2/17/18	1/11/19		Louisville KSC	2/17/17	2/28/20
	Philadelphia FI	5/17/19	5/17/20		Seattle PSC 2	9/7/18	9/6/19		Milwaukee	7/10/17	6/30/21
	Phoenix ASC	5/17/19	5/16/20		Sioux Falls	2/1/19	8/1/19		Monterrey Pap	2/2/18	4/15/20
	Pittsburgh CSC	5/19/19	5/18/20		Tallahassee CLC	2/16/18	2/28/20		Moscow Kin	9/10/17	6/2/20
	Portland OMSI ET	5/17/19	5/16/20		London BFI Ode	9/1/18	2/6/20		Orlando SC	2/17/17	11/9/19
	Raleigh	7/15/19	7/14/20		Melbourne MV	7/1/16	8/31/19		Peoria RM	2/18/17	6/1/20
	Sacramento Imx	7/12/19	7/11/20		Saint Augustine	8/19/17	4/15/21		Philadelphia FI	3/1/18	9/1/19
	Saint Paul SMM	9/1/19	9/1/19		Victoria DCI	4/15/18	4/15/19		Pittsburgh CSC	11/17/17	12/31/19
	Salt Lake City Clark	6/22/19	6/21/20		Stockholm	10/1/17	10/1/19		Port of Spain	5/3/19	5/2/20
	San Jose Tech	5/17/19	5/16/20		Galveston	11/17/18	11/30/19		Portage Cel	6/30/17	7/31/20
	Seattle PSC 2	5/31/19	7/18/20		Portland OMSI ET	1/26/18	1/31/20		Regina	2/17/17	12/31/19
Shreveport	7/4/19	7/3/20	Saint Felicien	4/1/18	11/30/19	Richmond SMV	2/18/17	9/1/19			
Sinsheim	5/17/19	5/16/20	Gatineau	4/24/18	3/30/20	Saint Augustine	2/17/17	6/30/20			
Speyer Dome	5/17/19	5/16/20	Atlanta FMNH	1/1/18	1/10/20	San Jose Tech	2/17/17	11/1/19			
Tallahassee CLC	7/12/19	7/11/20	Garden City	5/19/17	6/18/20	Sioux Falls	6/2/17	5/30/20			
Toronto OSC	5/17/19	11/16/20	Kolkata SC	1/1/19	12/31/20	Thessaloniki SCTM	10/28/17	10/2/19			
Toulouse CDE	6/1/19	12/31/19	Baltimore MSC	3/1/19	3/1/21	Victoria DCI	3/17/17	12/31/19			
Valencia Spn	7/1/19	6/30/20	Charlotte DP	11/24/18	11/23/19	Washington NASM	2/17/17	2/16/20			
Washington NASM	5/17/19	9/17/20	Cleveland	2/2/19	8/1/19	Edmonton TWS	9/14/18	9/23/19			
Yellowstone	5/17/19	5/16/20	Dearborn THF	8/1/18	7/31/19	Portland OMSI ET	6/13/19	6/14/21			
ACGOTS	Corpus Christi Lex	6/17/16		BackWild	Fort Lauderdale	6/1/18	5/31/20	Everest	Gatineau	7/30/18	3/30/20
	Dayton	6/17/16	12/31/19		Garden City	9/25/18	9/24/19		Kapurthala	6/15/18	6/14/20
	Hampton VASC	11/10/17	11/9/19		Garza Garcia	6/27/19	10/31/19		Harrisburg	3/20/19	
	Hutchinson	5/29/17	11/30/19		Gatineau	6/1/18	3/31/20		Baltimore MSC	3/1/19	6/30/21
	Pensacola NAM	5/26/17	6/30/20		Guangzhou GSC	5/1/19	5/1/20		Calgary TS	9/1/17	9/1/20
	Toronto OP	6/1/18	6/1/20		Guayaquil	4/3/19	3/31/20		Davenport Put	10/15/16	10/14/19
	Victoria DCI	5/3/19	5/31/20		Hague	2/12/19	2/11/20		Edmonton TWS	6/2/17	6/1/20
	Washington NASM	5/26/17	5/25/20		Houston MNS	2/16/19	9/15/19		Kansas City Sci	10/15/16	10/14/19
	Katowice CC	9/30/19	9/30/19		Jersey City	8/4/18	8/3/19		Melbourne MV	4/1/19	3/31/20
	Krakow CC	9/30/19	9/30/19		Kuwait SCK	8/10/19	2/10/20		Mennis Pink	3/24/17	8/31/19
AfricAdv	Lodz CC	9/30/19	9/30/19	Bugs	Lehi	5/24/18	5/24/20	ExpChesa	Philadelphia FI	2/11/17	12/31/19
	Poznan CC	9/30/19	9/30/19		Orlando SC	11/1/18	10/31/19		Raleigh	10/17/16	10/15/21
	Warsaw CC	9/30/19	9/30/19		Portland OMSI ET	9/7/18	9/6/19		Sacramento Imx	2/24/17	
	Wroclaw CC	9/30/19	9/30/19		Tallahassee CLC	10/18/18	10/18/19		Saint Augustine	10/15/16	10/16/20
	Boston NEA	7/1/19	2/15/20		Valencia Spn	4/1/19	6/30/20		Saint Louis SC	1/13/17	12/31/19
	Dongguan STM	1/1/19	12/31/19		Virginia Beach AMSC	6/30/18	12/31/19		Salt Lake City Clark	10/24/16	11/19/19
	Galveston	5/31/19	11/30/19		Davenport Put	10/1/12	4/28/20		San Jose Tech	10/15/16	10/30/19
	Harbin STM	12/1/18	12/1/19		Victoria DCI	8/18/17	5/14/21		Tallahassee CLC	5/19/17	5/1/20
	Portland OMSI ET	3/1/19	2/29/20		Fort Worth	6/10/17	9/30/19		Chantilly	12/10/04	
	Saint Louis SC	9/14/18	9/13/19		Boston MOS	2/15/19	2/29/20		Corpus Christi Lex	5/12/12	
AirRacer	Seattle PSC 2	10/5/18	10/5/19	CRA	Chicago MSI	3/1/19	3/31/20	FlyMons	Dayton	3/1/13	
	Shanghai 3D STM	1/1/19	1/1/20		Denver MNS	10/19/18	10/31/19		Baltimore MSC	3/1/19	6/30/21
	Tijuna	4/12/19	4/11/20		Edmonton TWS	2/1/19	2/28/20		Calgary TS	9/1/17	9/1/20
	Hutchinson	1/19/18	1/31/20		Galveston	3/9/19	3/31/20		Davenport Put	10/15/16	10/14/19
	Sacramento Imx	5/1/15	6/10/20		Gatineau	2/1/19	2/28/20		Edmonton TWS	6/2/17	6/1/20
	Austin TSHM	9/1/18	8/15/19		Hutchinson	2/15/19	2/28/20		Kansas City Sci	10/15/16	10/14/19
	Birmingham AL	5/19/19	5/18/20		Saint Louis SC	12/22/18	12/31/19		Melbourne MV	4/1/19	3/31/20
	Bradford	5/17/19	5/16/20		Saint Paul SMM	3/1/19	3/1/20		Portage Cel	6/30/17	7/31/20
	Cleveland	1/9/18	5/17/20		Seattle PSC 2	6/14/19	6/30/20		Regina	2/17/17	12/31/19
	Columbus COSI	1/10/18	9/2/19		Tallahassee CLC	1/18/19	6/30/20		Saint Augustine	10/15/16	10/16/20
AIWC	Dayton	5/25/19	5/24/20	Cuba	Tijuna	10/15/18	10/14/19	FightPil	Salt Lake City Clark	10/24/16	11/19/19
	Denver MNS	5/17/19	5/16/20		Victoria DCI	3/29/19	3/31/20		San Jose Tech	10/15/16	10/30/19
	Edmonton TWS	1/19/18	9/14/19		Columbus GA NIM	1/31/18	12/1/19		Tallahassee CLC	5/19/17	5/1/20
	Fort Worth	5/17/19	5/16/20		Dayton	5/26/17	12/31/19		Chantilly	12/10/04	
	Hague	5/21/19	11/21/19		Edmonton TWS	3/1/18	12/31/19		Corpus Christi Lex	5/12/12	
	Houston MNS	4/21/17	12/31/19		Gatineau	9/1/15	12/31/20		Dayton	3/1/13	
	Hutchinson	5/19/19	5/18/20		Hampton VASC	10/17/18	10/17/19		McMinnville	3/23/12	
	Kuwait SCK	6/14/18	12/31/19		Hutchinson	12/31/17	1/31/20		Charlotte DP	5/26/18	12/31/19
	London SM	5/17/19	5/16/20		Melbourne MV	5/1/19	7/31/19		Columbus COSI	7/17/17	7/30/19
	AmazAdve	Melbourne MV	9/15/17		9/13/19	D-Day	Peoria RM		4/2/15	2/28/20	FMTTM
Memphis Pink		5/25/19	5/24/21	Pittsburgh CSC	2/19/19		2/18/20	Kenner	6/4/16	6/3/21	
Norwalk MA		5/17/19	5/16/20	Raleigh	5/23/14		2/28/20	Killeen	9/15/17	9/15/20	
								Leon Exp	1/13/19		
								Kuwait SCK	5/24/19	8/31/19	
								Lucerne STM	5/25/19	8/15/19	
								Lucerne STM	8/25/19	9/26/19	
								Orlando SC	5/16/19	12/31/19	
								Hague	10/4/12	10/3/20	
								Harrisburg	2/28/19	2/27/21	

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
GBR3D	Davenport Put	1/29/19	10/20/20	JTTSP	KSC 1	2/27/15		SeaMonst SFLIS	San Jose Tech	10/3/15	10/31/20
	Katowice CC	6/18/14	9/30/19		Pensacola NAM	4/1/15	11/30/19		Tallahassee CLC	10/16/15	11/8/19
	Krakow CC	6/18/14	9/30/19		Tallahassee CLC	6/22/18	6/21/20		Edmonton TWS	1/3/16	8/31/19
	Kuwait SCK	5/24/19	8/31/19		Thessaloniki SCTM	12/14/18	1/13/20		Beijing 3D CSTM	1/1/19	6/30/20
	Lodz CC	6/18/14	9/30/19		Toronto OSC	10/15/18	10/15/19		Philadelphia FI	2/2/19	2/2/21
	Melbourne MV	4/11/19	4/10/20		Washington NASM	3/6/15			Victoria DCI	9/22/17	12/31/19
	Poznan CC	6/18/14	9/30/19		Edmonton TWS	1/16/15			Al Khobar	7/1/19	7/1/20
	Prague CC	5/22/14	12/31/19		Monterrey Pap	6/10/16	9/1/19		Copenhagen TBP	7/15/18	7/15/19
	Salt Lake City Clark	11/1/18	10/31/19		Speyer Dome	5/25/17	12/31/19		Hong Kong SM	1/1/19	
	Warsaw CC	6/18/14	9/30/19		Kenya	Hartberg	9/7/18		9/6/19	Melbourne MV	7/1/19
Wroclaw CC	10/4/17	9/30/19	Hutchinson	5/30/15		8/30/19	Salt Lake City Clark	11/10/18	8/30/19		
Alexandria BA	1/30/19	1/29/20	Orlando SC	9/1/17		8/31/19	Victoria DCI	9/11/18			
Atlanta FMNH	12/15/18	12/14/19	Davenport Put			4/26/20	Chantilly	7/12/19	7/12/20		
Boston MOS	7/5/18	9/1/19	Raleigh	1/1/15		7/2/20	Chicago MSI	8/2/19	5/25/20		
Chattanooga TA	5/24/19	5/23/20	Sacramento Imx	7/1/15		12/31/19	Salt Lake City Clark	8/31/19	8/30/20		
Cleveland	8/1/18	7/31/19	Saint Augustine			6/14/20	Washington NASM	7/12/19	7/12/20		
Fort Lauderdale	10/5/18	10/4/19	San Diego RHF			4/3/20	Beijing 3D CSTM	4/1/19	3/31/20		
Harrisburg	7/6/18	7/22/21	Chantilly	5/1/15			Hutchinson	9/8/17	3/31/20		
Houston MNS	3/8/19	3/8/20	Davenport Put	7/1/16		10/1/20	McMinnville	10/1/18	10/31/19		
Jersey City	11/23/18	11/22/19	LITAOA	Edmonton TWS	1/1/19	12/31/19	Hutchinson	10/31/14	11/30/20		
Lubbock SS	5/24/19	11/24/19		Hutchinson	5/1/15	7/19	Shanghai 3D STM	2/1/19	2/1/20		
Milwaukee	3/30/19	6/30/20		Lehi	4/10/15	7/30/19	Albuquerque NMMNH	4/19/19			
Phoenix ASC	5/24/19	9/1/19		London BFI Ode	10/16/15		Atlanta FMNH	5/15/19			
Port of Spain	1/30/19	1/29/20		McMinnville	4/10/15	5/30/21	Atlantic City	3/15/19			
Saint Augustine	8/20/18	8/19/20		Washington NASM	4/10/15		Baltimore MSC	7/1/19			
Salt Lake City Clark	7/21/18	7/20/19		Albuquerque NMMNH	2/1/19	2/10/20	Birmingham AL	3/15/19			
San Diego RHF	7/5/18	7/5/19		Atlanta FMNH	2/9/18	2/8/20	Bradford	4/12/19			
Atlanta FMNH	5/3/19	4/30/20		Melbourne MV	1/30/17	1/28/20	Branson	3/15/19			
Beijing 3D CSTM	5/2/19	5/5/20		Oulu	4/1/19	9/30/19	Carnival Horizon	3/15/19			
GBRF	Boston MOS	7/5/19	7/14/20	Meerkats	Tallahassee CLC	8/14/18	8/13/20	Carnival Vista	3/15/19		
	Fort Lauderdale	2/15/19	2/14/20		Victoria DCI	11/24/17	4/15/21	Chantilly	3/15/19		
	Fort Worth	7/26/19	7/25/20		Davenport Put	6/1/17	5/31/20	Charleston CCAS	7/15/19		
	Galveston	8/30/19	8/18/20		Edmonton TWS	1/1/19	12/31/19	Charlotte DP	3/15/19		
	Gatineau	7/12/19	7/1/20		Sioux Falls	6/1/18	12/31/20	Chicago NP AMC	3/15/19		
	Harrisburg	2/15/19	2/14/20		Memphis Pink	2/9/19	5/22/20	Cleveland	6/15/19		
	Jersey City	3/15/19	3/14/20		Mobile	1/25/19	1/31/20	Columbus COSI	3/15/19		
	Kansas City Sci	7/14/19	7/3/20		Sudbury	9/7/17	10/31/19	Davenport Put	3/15/19		
	Orlando SC	2/23/19	2/22/20		Tallahassee CLC	5/1/19	11/1/20	Dearborn THF	3/15/19		
	Raleigh	3/1/19	2/28/20		Pensacola NAM	11/8/96		Denver MNS	3/15/19		
GC GCA	Regina	2/15/19	2/14/20	MOC	Speyer Dome		12/31/19	Edmonton TWS	3/15/19		
	Saint Augustine	2/15/19	2/14/20		Hague	10/1/15	12/19	Fort Lauderdale	4/19/19		
	Seattle PSC 2	5/3/19	5/2/20		Mumbai Gha INOX	1/1/18	12/31/19	Fort Worth	3/15/19		
	Singapore SC	3/16/19	3/15/20		Parker	1/30/19	1/29/20	Hague	6/18/19		
	Sudbury	2/15/19	6/30/20		Raleigh	11/1/15	10/17/19	Hampton VASC	3/15/19		
	Tijuana	2/22/19	2/22/20		San Diego RHF	11/8/13	4/3/20	Hastings	3/15/19		
	Toronto OSC	2/15/19	2/14/20		Stockholm	9/18/15	9/1/19	Houston MNS	4/26/19		
	Vancouver TWS	2/15/19	2/14/20		Tallahassee CLC	3/17	3/20	Indianapolis Imx	3/15/19		
	Victoria DCI	2/15/19	2/14/20		Louisville KSC	6/14/19	6/13/20	Jersey City	6/24/19		
	Yellowstone	5/17/19	5/16/20		MounQues	Milwaukee	10/1/18	9/30/19	Kansas City Sci	6/14/19	
Grand Canyon DCI	11/1/99	12/19	Baton Rouge LASM	3/1/17		3/31/21	Kaohsiung NSTM	7/1/19			
Grand Rapids Cel	9/1/18	7/31/20	Cincinnati MC	2/1/19		12/31/19	Los Angeles CSC	3/15/19			
Lansing Cel	5/1/19	7/31/20	Melbourne MV	9/22/17		9/30/19	Louisville KSC	3/15/19			
Portage Cel	9/1/18	7/31/20	Peoria RM	10/16/18		10/31/20	Lubbock SS	3/10/19			
GlobSoun	Richmond SMV	6/1/16	9/1/19	ND Niagara	Phoenix ASC	2/6/19	2/28/20	Melbourne MV	6/1/19		
	Charlotte DP	11/1/17	10/1/20		New Delhi ICC			Mobile	5/4/19		
	Des Moines	10/1/16	9/1/20		Niagara Can DCI	7/1/86		Montreal SC	5/15/19		
	Edmonton TWS	10/1/16	6/4/20		Niagara NY DCI	5/1/07		Moscow Kin	8/29/19		
	Mobile	10/18/17	10/31/20		Baton Rouge LASM	11/1/16	9/1/19	Norwalk MA	3/15/19		
	Seattle PSC 1	10/1/16	12/31/20		Branson	3/18/16	4/12/20	Omaha Zoo	5/1/19		
	Vancouver TWS	10/1/16	2/5/20		Carnival Horizon	4/1/18	10/5/19	Orlando SC	4/1/19		
	Gatineau	10/7/16	3/31/20		Carnival Vista	11/4/16	6/6/20	Peoria RM	3/30/19		
	Hutchinson	7/1/17	12/31/19		Chattanooga TA	2/12/16	4/1/20	Philadelphia FI	4/13/19		
	San Jose Tech	10/31/18	1/31/20		Cincinnati MC	1/1/19	2/1/21	Portland OMSI ET	3/15/19		
HCBTD HiddPac	Syracuse MOST	6/1/19	6/1/20	NPA	Cleveland	7/1/17	3/31/20	Quantico	5/10/19		
	San Simeon DCI	8/1/96			Dearborn THF	3/25/16	7/1/20	Raleigh	3/15/19		
	Alamogordo	6/28/19	6/30/20		Dongguan STM	1/25/17	9/1/19	Regina	3/15/19		
	Boston NEA	6/28/19	6/30/20		Edmonton TWS	2/12/16	10/15/19	Sacramento Imx	3/15/19		
	Chicago MSI	5/24/19	5/31/20		Grand Rapids Cel	10/1/18	7/31/20	Saint Louis SC	3/15/19		
	Lehi	6/28/19	6/30/20		Harrisburg	7/1/16	7/12/20	Salt Lake City Clark	3/30/19	3/29/20	
	New Orleans	5/9/19	5/31/20		Hartberg	6/1/19	6/1/21	San Diego RHF	3/15/19		
	Grand Rapids Cel	5/2/19	7/31/20		Hastings	6/9/16	7/1/19	San Jose Tech	3/22/19		
	Hampton VASC	9/7/18	12/31/19		Houston MNS	7/1/18	12/31/19	Seattle PSC 2	3/15/19		
	Lansing Cel	7/1/18	7/31/20		Hutchinson	2/19/16	9/1/19	Shreveport	3/15/19		
Parker	7/29/18	7/21/19	Lansing Cel	10/1/18	7/31/20	Sioux Falls	6/1/19				
HOTB HumpbWha	Portage Cel	5/2/19	7/31/20	OOBP	London BFI Ode	2/12/16	9/1/19	TA	Sudbury	3/11/15	
	Tallahassee CLC	2/1/19	2/28/20		Lucerne STM	3/17/16	9/1/19		Syracuse MOST	4/15/19	
	New Orleans	9/15/15	12/31/19		Mexicali	4/22/18	8/18/19		Tallahassee CLC	3/15/19	
	Baltimore MSC	7/1/15	9/1/19		Moscow Kin	9/17/16	12/1/19		Tijuana	7/21/19	
	Berlin CS	6/3/19	6/3/20		Pittsburgh CSC	2/12/16	12/31/19		Toronto OP	7/1/19	
	Boston MOS	2/13/15	12/31/19		Portage Cel	10/1/18	7/31/20		Toronto OSC	4/12/19	
	Cincinnati MC	2/1/19	2/1/21		Raleigh	2/27/16	9/1/19		Vancouver TWS	5/1/19	
	Edmonton TWS	10/2/15			Richmond SMV	4/10/16	9/1/19		Victoria DCI	5/1/19	
	Grand Rapids Cel	9/1/18	7/31/20		Sacramento Imx	2/19/16	3/25/20		Virginia Beach AMSC	5/15/19	
	Hangzhou LCSTM	6/1/19	5/31/20		San Diego NHM	12/1/18	8/31/19		Washington NASM	3/15/19	
Lansing Cel	6/1/19	7/31/19	San Jose Tech	2/12/16	11/1/19	Fort Worth	3/1/17	9/30/19			
HidUniv	Leon Exp	12/1/18	9/1/19	Pandas Penguins PlanPowe	Shreveport	3/15/19		Louisville KSC	2/1/16	7/31/19	
	Pittsburgh CSC	6/17/16	12/31/19		Sinsheim	3/4/16	3/1/20	Portland OMSI ET	1/26/18	1/31/20	
	Portage Cel	9/1/18	7/31/20		Vancouver TWS	2/12/16	9/1/19	Garza Garcia	4/13/19	10/13/19	
	Richmond SMV	3/14/15	7/31/19		Al Khobar	8/15/18	8/30/19	Harrisburg	2/1/18	3/31/21	
	Sacramento Imx	8/19/16	10/24/19		Athens Eug	3/1/19	3/31/20	Louisville KSC	9/21/17	9/30/19	
	Sudbury	9/24/15			Atlanta FMNH	8/3/18	8/30/19	Melbourne MV	9/22/17	9/30/19	
	Tallahassee CLC	1/1/19	2/28/20		Birmingham AL	9/30/18	9/30/19	Memphis Pink	11/17/18	5/22/20	
	Vancouver TWS	10/9/15	9/1/19		Columbus COSI	9/22/18	9/30/19	Monterrey Pap	4/13/19	10/13/19	
	Lucerne STM	12/18/18	8/31/19		Denver MNS	9/1/18	9/30/19	Peoria RM	6/30/18	6/30/20	
	Monterrey Pap	6/29/19	1/10/20		Hague	7/13/18	7/31/19	Pittsburgh CSC	11/15/17	11/30/19	
Hurrican	Atlanta FMNH	9/30/17	12/31/19	TOTIA	Kuwait SCK	8/20/18	8/31/19	TinyGian	Tallahassee CLC	1/6/16	7/31/19
	Columbus COSI	9/22/18	9/30/19		New York AMNH	7/1/19	1/5/20		Hutchinson	7/1/17	12/31/19
	Lehi	9/29/17	9/30/19		Norwalk MA	10/5/18	10/31/19		Louisville KSC	6/30/18	7/31/19
	Phoenix ASC	10/19/18	10/31/19		Peoria RM	9/28/18	9/30/19		Melbourne MV	9/22/17	9/30/19
	Victoria DCI	11/16/18	11/30/19		Portland OMSI ET	4/20/18	4/30/20		Phoenix ASC	12/1/18	12/31/19
	Dearborn THF	7/1/19	6/30/20		Stockholm	2/22/19	2/21/20		Harrisville USSRC	8/21/19	8/21/20
	Edmonton TWS	12/26/13	6/30/20		Sudbury	3/8/19	6/30/20		Glasgow	4/1/15	5/20/20
	Hague	3/31/14	12/31/19		Tallahassee CLC	6/7/19	12/31/20		Grand Rapids Cel	6/2/18	7/31/20
	Jersey City	9/1/18	8/31/20		Victoria DCI	7/1/18	7/31/19		Lansing Cel	6/1/18	7/31/20
	London BFI Ode	1/1/14	12/31/19		Virginia Beach AMSC	1/1/19	1/31/20		Moscow Kin	11/1/18	12/1/19
Louisville KSC	1/20/14	7/20/20	Shreveport	3/15/19		Portage Cel	6/1/16	7/31/20			
Sacramento Imx	9/15/14	10/23/19	Atlanta FMNH	1/31/19	2/1/20	Tallahassee CLC	2/1/19	2/28/20			
JMCISO JTM JTS	Salt Lake City Clark	12/21/18	11/21/19	PTJH	Poitiers Imax	29/19	2/8/20	TTS	Copenhagen TBP	4/14/19	4/13/20
	San Diego RHF	11/20/15	4/3/20		Sinsheim	3/28/19	3/27/20		Huntsville USSRC	5/1/19	12/31/20
	Speyer Dome	12/12/13	12/11/19		Valencia Spn	1/7/19	6/30/20		KSC 1	5/1/19	4/30/20
	Harbin STM	12/1/18	12/1/19		Charleston CCAS	1/1/19	1/1/21		McMinnville	1/1/19	12/31/19
	Kuwait SCK	7/6/19	8/15/20		12/1/19	12/1/19	Denver MNS		8/21/19	8/21/20	
	Al Khobar	6/1/19	6/1/20		Louisville KSC	7/4/14	7/20/20		Edmonton TWS	9/23/19	9/23/20
	Dayton	3/6/15	12/1/19		Vantaa	1/27/17	1/26/20		Erie	4/27/19	10/30/19
	Garza Garcia	12/4/18	8/4/19		Bogota Mal	6/1					

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
TurtTale	Port of Spain	9/27/18	9/26/19	WildAfri	Erie	2/15/19	7/30/19	WM WOTA	Las Palmas	7/15/18	7/31/19
	Sudbury	12/7/18	12/6/19		Gatineau	6/1/19	1/6/20		Lucerne STM	9/21/17	9/30/19
	Virginia Beach AMSC	6/30/18	9/30/19		Kagoshima MSC	12/18	12/19		Melbourne MV	1/4/18	2/1/21
	Katowice CC		9/30/19		Kuwait SCK	6/4/19	12/31/19		Portland OMSI ET	1/26/18	1/31/20
	Krakow CC		9/30/19		Lehi	10/13/18	10/12/19		Richmond SMV	2/1/17	
VanGogh Vikings	Lodz CC		9/30/19	Volcanoes	Los Angeles CSC	1/16/19	7/15/19	WTM	Louisville KSC	2/8/14	12/31/19
	Poznan CC		9/30/19		Lubbock SS	7/5/19	1/30/20		Galveston	11/17/18	11/30/19
	Warsaw CC		9/30/19		Melbourne MV	3/21/19	3/20/20		Saint Félicien	4/1/18	11/30/19
	Wroclaw CC		9/30/19		Montreal SC	2/14/19	8/14/19		San Diego RHF	12/7/18	12/31/19
	Gatineau	7/30/18	3/30/20		Phoenix ASC	2/22/19	7/20/19		Quantic	7/31/17	
Volcanoes	Philadelphia FI	10/13/18	10/1/19	WildAfri	Portland OMSI ET	10/13/18	10/12/19	WWDPP3D	Singapore DC	4/1/19	8/31/19
	Albuquerque NMMNH	10/15/18	10/14/19		Richmond SMV	6/1/19	5/31/20		Bradford	9/16/15	9/30/19
	Boston MOS	11/9/18			Saint Louis SC	5/17/19			Erie	9/15/16	12/15/19
	Chattanooga TA	6/28/19	12/28/19		Salt Lake City Clark	1/16/19	2/15/20		Melbourne MV	9/22/17	9/30/19
	Chicago MSI	3/19			San Diego RHF	11/9/18		Yell	Portland OMSI ET	1/26/18	1/31/20
	Cincinnati MC	12/21/18			Vancouver TWS	11/17/18	9/30/19		Tallahassee CLC	4/19/16	7/31/19
	Davenport Put	11/9/18	11/8/19		Victoria DCI	1/18/19	7/18/19		Yellowstone	5/1/14	12/31/20
	Denver MNS	1/24/19	1/23/20		Charlotte DP	9/19/18	9/30/19				
	Edmonton TWS	10/12/18	10/11/19		Davenport Put	8/20/17	9/30/19				

Summer 2019 by Theater

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Aguascalientes	AMJ	4/5/19	8/5/19	Chicago NP AMC Cincinnati MC	Volcanoes	3/19		Fort Worth	SupDogs	4/19/19	
Al Khobar	DinoAliv	4/13/19	4/30/20		SupDogs	3/15/19			A11FSE	5/17/19	5/16/20
	JTS	6/1/19	6/1/20		HumpbWha	2/1/19	2/1/21		AmazAdv	5/17/19	5/16/20
	OOBP	8/15/18	8/30/19		Mummies	2/1/19	12/31/19		CRA	6/10/17	9/30/19
Alamogordo Albuquerque NMMNH	SOE	7/1/19	7/1/20	NPA	1/1/19	2/1/21	DinoAliv	7/15/16	9/30/19		
	HiddPac	6/28/19	6/30/20	Volcanoes	12/21/18		Dolphins	5/28/16	9/30/19		
	AMJ	7/16/18	7/15/19	A11FSE	5/18/19	5/17/20	DreamBig	2/17/17	9/1/19		
Alexandria BA Athens Eug Atlanta FMNH	MA	2/11/19	2/10/20	AmazAdv	1/9/18	5/17/20	GBRF	7/26/19	7/25/20		
	SupDogs	4/19/19		AMJ	3/23/18	3/31/20	SupDogs	3/15/19			
	Volcanoes	10/15/18	10/14/19	BackWild	2/2/19	8/1/19	TA	3/1/17	9/30/19		
	GBR3D	1/30/19	1/29/20	DreamBig	3/17/17	3/31/20	AGWN	5/31/19	11/30/19		
	COBP	3/1/19	3/31/20	GBR3D	8/1/18	7/31/19	AOTE	11/1/19	11/30/19		
Atlantic City Austin Reg Austin TSHM Baltimore MSC Baton Rouge LASM Beijing 3D CSTM	A11FSE	6/1/19	5/30/20	NPA	7/1/17	3/31/20	Cuba	3/9/19	3/31/20		
	AsterME	1/11/18	1/10/20	SupDogs	6/15/19		GBRF	8/30/19	8/18/20		
	GBR3D	12/15/18	12/14/19	A11FSE	5/24/19	9/2/19	WOTA	11/17/18	11/30/19		
	GBRF	5/3/19	4/30/20	AmazAdv	1/10/18	9/2/19	A11FSE	5/21/19	5/20/20		
	IncrPred	9/30/17	12/31/19	FlyMons	7/17/17	7/30/19	AsterME	5/19/17	6/18/20		
	MA	2/9/18	2/8/20	IncrPred	9/22/18	9/30/19	BackWild	9/25/18	9/24/19		
	OOBP	8/3/18	8/30/19	OOBP	9/22/18	9/30/19	DreamBig	12/1/17	12/31/19		
	Penguins	1/31/19	2/1/20	SupDogs	3/15/19		BackWild	6/27/19	10/31/19		
	SupDogs	5/15/19		D-Day	1/31/18	12/1/19	JTS	12/4/18	8/4/19		
	SupDogs	3/15/19		A11FSE	6/12/19	6/11/20	TinyGian	4/13/19	10/13/19		
Austin TSHM	AMJ	3/1/19	6/1/20	SOE	7/15/18	7/15/19	Gatineau	4/24/18	3/30/20		
	AmazAdv	9/1/18	8/15/19	TTS	4/14/19	4/13/20	BackWild	6/1/18	3/31/20		
	DreamBig	10/1/17	9/1/19	ACGOTS	6/17/16		Cuba	2/1/19	2/28/20		
	BackWild	3/1/19	3/1/21	FightPil	5/12/12		D-Day	9/1/15	12/31/20		
	DreamBig	2/17/17	3/1/20	A11FSE	7/13/19	7/12/20	Dolphins	7/9/18	3/20/20		
Baton Rouge LASM	ExtrWeat	3/1/19	6/30/21	Bugs	10/1/12	4/28/20	Everest	7/30/18	3/30/20		
	HumpbWha	7/1/15	9/1/19	DreamBig	2/24/17	3/31/20	GBRF	7/2/19	7/1/20		
	SupDogs	7/1/19		ExtrWeat	10/15/16	10/14/19	GWS	10/7/16	3/31/20		
	A11FSE	7/6/19	7/5/20	FlyMons	3/27/14	6/1/20	VanGogh	7/30/18	3/30/20		
	AMJ	5/25/19	5/24/20	G3DNW	1/29/19	10/20/20	Volcanoes	6/1/19	1/6/20		
	DreamBig	6/30/17	9/1/19	L&C		4/26/20	TTA	4/1/15	5/20/20		
	Mummies	3/1/17	3/31/21	LITAOA	7/1/16	10/1/20	GC	11/1/99	12/19		
	NPA	11/1/16	9/1/19	Meerkats	6/1/17	5/31/20	DreamBig	7/15/17	7/31/20		
	GBRF	5/2/19	5/5/20	SupDogs	3/15/19		GCA	9/1/18	7/31/20		
	SFLIS	1/1/19	6/30/20	Volcanoes	11/9/18	11/8/19	HidUniv	5/2/19	7/31/20		
Berlin CS	SpaceNex	4/1/19	3/31/20	WildAfri	8/20/17	9/30/19	HumpbWha	9/1/18	7/31/20		
	G3DNW	4/20/14	10/19/19	A11FSE	5/25/19	5/24/20	NPA	10/1/18	7/31/20		
	HumpbWha	6/3/19	6/3/20	ACGOTS	6/17/16	12/31/19	TTA	6/2/18	7/31/20		
	A11FSE	5/19/19	5/18/20	AmazAdv	5/25/19	5/24/20	Guangzhou GSC	5/1/19	5/1/20		
	AmazAdv	5/19/19	5/18/20	D-Day	5/26/17	12/31/19	Guayaquil	4/16/19	4/15/20		
Birmingham AL	OOBP	9/30/18	9/30/19	FightPil	3/1/13		BackWild	4/3/19	3/31/20		
	SupDogs	3/15/19		JTS	3/6/15	12/1/19	A11FSE	5/21/19	11/21/19		
	RobotsNG	6/1/19	5/31/20	A11FSE	6/17/19	6/16/20	AmazAdv	5/21/19	11/21/19		
	Cuba	2/15/19	2/29/20	AMJ	2/16/18	2/18/20	AMJ	7/3/18	7/2/19		
	GBR3D	7/5/18	9/1/19	BackWild	8/1/18	7/31/19	BackWild	2/12/19	2/11/20		
Bogota Mal Boston MOS	GBRF	7/5/19	7/4/20	DreamBig	2/17/17	7/1/20	FON	10/4/12	10/3/20		
	HumpbWha	2/13/15	12/31/19	ISR	7/1/19	6/30/20	Jerusalem	3/31/14	12/31/19		
	Volcanoes	11/9/18		NPA	3/25/16	7/1/20	MOTUW	10/1/15	12/19		
	AGWN	7/1/19	2/15/20	RobotsNG	3/25/16	1/31/20	OOBP	7/13/18	7/31/19		
	HiddPac	6/28/19	6/30/20	SupDogs	3/15/19		PTJH	6/9/15	12/19		
Bradford	A11FSE	5/17/19	5/16/20	Denver MNS	A11FSE	5/17/19	5/16/20	SupDogs	6/18/19		
	AmazAdv	5/17/19	5/16/20	AmazAdv	5/17/19	5/16/20	A11FSE	7/1/19	8/1/19		
	DreamBig	1/1/18	12/31/19	Cuba	10/19/18	10/31/19	A11FSE	6/15/19	6/14/20		
	SupDogs	4/12/19		OOBP	9/1/18	9/30/19	ACGOTS	11/10/17	11/9/19		
	WWDPP3D	9/16/15	9/30/19	SupDogs	3/15/19		AMJ	10/1/18	9/30/19		
Branson	A11FSE	6/14/19	6/13/20	TurtOdy	8/22/19	8/21/20	D-Day	10/17/18	10/17/19		
	NPA	3/18/16	4/12/20	Volcanoes	1/24/19	1/23/20	DreamBig	2/17/17	6/14/20		
	SupDogs	3/15/19		GlobSoun	10/1/16	9/1/20	HidUniv	9/7/18	12/31/19		
	ExtrWeat	9/1/17	9/1/20	AGWN	1/1/19	12/31/19	JTS	2/21/15	2/20/20		
	Carnival Horizon	NPA	4/1/18	10/5/19	NPA	1/25/17	9/1/19	SupDogs	3/15/19		
Carnival Vista	SupDogs	3/15/19		A11FSE	5/17/19	9/14/19	HumpbWha	6/1/19	5/31/20		
	NPA	11/4/16	6/6/20	AmazAdv	1/19/18	9/14/19	AGWN	12/1/18	12/1/19		
	SupDogs	3/15/19		Cuba	2/1/19	2/28/20	JMCSO	12/1/18	12/1/19		
	A11FSE	5/17/19	5/17/20	D-Day	3/1/18	12/31/19	DreamBig	2/18/17	3/11/20		
	DreamBig	2/17/17	2/16/20	DreamBig	3/25/17	2/18/20	ExpChesa	3/20/19			
Charlotte DP	FightPil	12/10/04		DSO	9/14/18	9/23/19	FON	2/28/19	2/27/21		
	LITAOA	5/1/15		ExtrWeat	6/2/17	6/1/20	GBR3D	7/6/18	7/22/21		
	SOTU	7/12/19	7/12/20	GlobSoun	10/1/16	6/4/20	GBRF	2/15/19	2/14/20		
	SupDogs	3/15/19		HumpbWha	10/2/15		NPA	7/1/16	7/12/20		
	PTJH	1/1/19	1/1/21	Jerusalem	12/26/13	6/30/20	TinyGian	2/1/18	3/31/21		
	SupDogs	7/15/19		JTSP	1/16/15		AMJ	4/6/19	4/15/20		
	BackWild	11/24/18	11/23/19	LITAOA	1/1/19	12/31/19	Kenya	9/7/18	9/6/19		
	DreamBig	8/26/17	12/31/19	Meerkats	1/1/19	12/31/19	NPA	6/1/19	6/1/21		
	FlyMons	5/26/18	12/31/19	NPA	2/12/16	10/15/19	DreamBig	10/19/17	10/1/19		
	GlobSoun	11/1/17	10/1/20	SeaMonst	1/3/16	8/31/19	NPA	6/9/16	7/1/19		
Chattanooga TA	SupDogs	3/15/19		SupDogs	3/15/19		SupDogs	3/15/19			
	WildAfri	9/19/18	9/30/19	TurtOdy	6/21/19	9/23/20	SOE	1/1/19			
	A11FSE	6/14/19	6/13/20	Volcanoes	10/12/18	10/11/19	A11FSE	5/17/19	9/3/19		
	GBR3D	5/24/19	5/23/20	TurtOdy	4/27/19	10/30/19	AmazAdv	4/21/17	12/31/19		
	NPA	2/12/16	4/1/20	Volcanoes	2/15/19	7/30/19	BackWild	2/16/19	9/15/19		
Chicago MSI	Volcanoes	6/28/19	12/28/19	WWDPP3D	9/15/16	12/5/19	DreamBig	2/17/17	12/31/19		
	A11FSE	5/24/19	5/23/20	BackWild	6/1/18	5/31/20	GBR3D	3/8/19	3/8/20		
	Cuba	3/1/19	5/31/20	DreamBig	2/17/17	6/6/20	NPA	7/1/18	12/31/19		
	HiddPac	5/24/19	5/31/20	GBR3D	10/5/18	10/4/19	SupDogs	4/26/19			
	SOTU	8/2/19	5/25/20	GBRF	2/15/19	2/14/20	A11FSE	6/1/19	5/30/20		

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Hutchinson	TSAB	5/1/19	4/30/20	Memphis Pink	TurtOdys	5/12/18	12/31/19	Regina	D-Day	5/23/14	2/28/20
	TTS	5/1/19	12/31/20		Volcanoes	3/21/19	3/20/20		ExtrWeat	10/17/16	10/15/21
	A11FSE	5/17/19	5/16/20		WildAfr	1/4/18	2/1/21		FON	2/1/12	10/21
	ACGOTS	5/29/17	11/30/19		WVDP3D	9/22/17	9/30/19		GBRF	3/1/19	2/28/20
	AirRacer	1/19/18	1/31/20		A11FSE	5/25/19	5/24/21		L&C	1/1/15	7/2/20
	AmazAdve	5/19/19	5/18/20		AmazAdve	5/25/19	5/24/21		MOTUW	1/1/15	10/17/19
	Cuba	2/15/19	2/28/20		AMJ	8/1/18	8/10/19		NPA	2/27/16	9/1/19
	D-Day	12/31/17	1/31/20		ExtrWeat	3/24/17	8/31/19		SupDogs	3/15/19	
	GWS	7/1/17	12/31/19		MOC	2/9/19	5/22/20		DreamBig	2/17/17	12/31/19
	Kenya	5/30/15	8/30/19		TinyGian	11/17/18	5/22/20		GBRF	2/15/19	2/14/20
Indianapolis Imx	LITAOA	5/1/15	7/19	AMJ	9/22/18	8/23/19	RobotsNG	9/1/18	9/1/19		
	NPA	2/19/16	9/1/19	NPA	4/22/18	8/18/19	SupDogs	3/15/19			
	SpaceNex	9/8/17	3/31/20	AMJ	3/15/18	12/31/19	DreamBig	2/18/17	9/1/19		
	SpacJunk	10/31/14	11/30/20	DreamBig	7/10/17	6/30/21	GCA	6/1/16	9/1/19		
	TOTIA	7/1/17	12/31/19	GBR3D	3/30/19	6/30/20	HumpbWha	3/14/15	7/31/19		
	A11FSE	7/12/19	7/11/20	MounQues	10/1/18	9/30/19	NPA	4/10/16	9/1/19		
	DreamBig	1/17/19	1/16/20	GlobSoun	10/18/17	10/31/20	Volcanoes	6/1/19	5/31/20		
	JTS	8/31/18	8/30/19	MOC	1/25/19	1/31/20	WildAfr	2/1/17			
	SupDogs	3/15/19		SupDogs	5/4/19		A11FSE	7/12/19	7/1/20		
	TurtOdys	5/17/19	11/16/19	AMJ	3/15/18	4/15/20	A1WC	5/1/15	6/10/20		
Jersey City	BackWild	8/4/18	8/3/19	DreamBig	2/2/18	4/15/20	ExtrWeat	2/24/17			
	DreamBig	2/17/17	12/31/19	Hurricane	6/29/19	1/10/20	HumpbWha	8/19/16	10/24/19		
	GBR3D	11/23/18	11/22/19	JTTS	6/10/16	9/1/19	Jerusalem	9/15/14	10/23/19		
	GBRF	3/15/19	3/14/20	TinyGian	4/13/19	10/13/19	L&C	7/1/15	12/31/19		
	Jerusalem	9/1/18	8/31/20	SupDogs	5/15/19		NPA	2/19/16	3/25/20		
	SupDogs	6/24/19		Volcanoes	2/14/19	8/14/19	SupDogs	3/15/19			
	A11FSE	7/1/19	10/1/19	AMJ	4/15/18	4/16/20	AMMM	8/19/17	8/31/19		
	Volcanoes	12/18	12/19	DreamBig	9/10/17	6/2/20	DreamBig	2/17/17	6/30/20		
	DinoAliv	7/3/18	7/31/19	NPA	9/17/16	12/1/19	ExtrWeat	10/15/16	10/16/20		
	Kagoshima MSC	ExtrWeat	10/15/16	10/14/19	SupDogs	8/29/19		GBR3D	8/20/18	8/19/20	
GBRF		7/4/19	7/3/20	TTA	11/1/16	12/1/19	GBRF	2/15/19	2/14/20		
SupDogs		6/14/19		MOTUW	1/1/18	12/31/19	L&C	6/14/20			
SupDogs		7/1/19		Dolphins	3/1/19	12/1/19	AOTE	4/1/18	11/30/19		
Everest		6/15/18	6/14/20	ND			WOTA	4/1/18	11/30/19		
AfricaAdv		9/30/19	9/30/19	HiddPac	5/9/19	5/31/20	AGWN	9/14/18	9/13/19		
G3DNNW		6/18/14	9/30/19	HOTB	9/15/15	12/31/19	Cuba	12/22/18	12/31/19		
TurtTale		9/30/19	9/30/19	OOBP	7/1/19	1/5/20	ExtrWeat	1/13/17	12/31/19		
FlyMons		6/4/16	6/3/21	Niagara	7/1/86		SupDogs	3/15/19			
Killeen		9/15/17	9/15/20	Niagara	5/1/07		Volcanoes	5/17/19			
Kolkata SC	AsterME	1/1/19	9/15/20	A11FSE	5/17/19	5/16/20	A11FSE	5/17/19	8/4/19		
	Dolphins	3/1/19	12/1/19	AmazAdve	5/17/19	5/16/20	AmazAdve	5/17/19	8/4/19		
	AfricaAdv	9/30/19	9/30/19	OOBP	10/5/18	10/31/19	Cuba	3/1/19	3/1/20		
	G3DNNW	6/18/14	9/30/19	SupDogs	3/15/19		A11FSE	6/22/19	6/21/20		
	TurtTale	9/30/19	9/30/19	SupDogs	5/1/19		ExtrWeat	10/24/16	11/19/19		
	JTS	2/27/15		A11FSE	7/1/19	6/30/20	G3DNNW	11/1/18	10/31/19		
	TTS	5/1/19	4/30/20	AmazAdve	2/24/18	6/30/20	GBR3D	7/21/18	7/20/19		
	A11FSE	5/17/19	12/31/19	BackWild	11/1/18	10/31/19	Jerusalem	12/21/18	11/21/19		
	AmazAdve	6/14/18	12/31/19	DreamBig	2/17/17	11/9/19	SOE	11/10/18	8/30/19		
	Krakow CC	BackWild	8/10/19	2/10/20	FMTT	5/16/19		SOTU	8/31/19	8/30/20	
FMTT		5/24/19	8/31/19	GBRF	2/23/19	2/22/20	SupDogs	3/30/19	3/29/20		
G3DNNW		5/24/19	8/31/19	Kenya	9/1/17	8/31/19	Volcanoes	1/16/19	2/15/20		
JTM		7/26/19	8/31/20	SupDogs	4/1/19		NPA	12/1/18	8/31/19		
OOBP		8/20/18	8/31/19	MA	4/1/19	9/30/19	FON	11/14	4/20		
Volcanoes		6/4/19	12/31/19	HidUniv	7/29/18	7/21/19	GBR3D	7/5/18	7/5/19		
DreamBig		6/30/17	7/31/20	MOTUW	1/30/19	1/29/20	Jerusalem	11/20/15	4/3/20		
GCA		5/1/19	7/31/20	A11FSE	5/17/19	5/16/20	L&C		4/3/20		
HidUniv		7/1/18	7/31/20	ACGOTS	5/26/17	6/30/20	MOTUW	11/8/13			
HumpbWha		6/1/19	7/31/19	AmazAdve	5/17/19	5/16/20	SupDogs	3/15/19			
Las Palmas Lehi	TTA	6/1/18	7/31/20	AMJ	2/26/19	2/27/20	Volcanoes	11/9/18			
	WildAfr	7/15/18	7/31/19	JTS	4/1/15	11/30/19	WOTA	12/7/18	12/31/19		
	BackWild	5/24/18	5/24/20	MOF	11/8/96		A11FSE	5/17/19	5/16/20		
	FOTB	1/19/19	1/19/20	A11FSE	5/25/19	5/24/20	AMJ	2/17/18	11/1/19		
	HiddPac	6/28/19	6/30/20	AmazAdve	6/20/18	5/24/20	D-Day	5/15/19	6/30/20		
	IncrPred	9/29/17	9/30/19	AMJ	2/16/18	2/17/20	DreamBig	2/17/17	11/1/19		
	LITAOA	4/10/15	7/30/19	D-Day	4/2/15	2/28/20	ExtrWeat	10/15/16	10/30/19		
	TurtOdys	7/13/18	7/12/19	DreamBig	2/18/17	6/1/20	GWS	10/31/18	1/31/20		
	Volcanoes	10/13/18	10/12/19	Mummies	10/16/18	10/31/20	NPA	2/12/16	11/1/19		
	Leon Exp	FlyMons	3/1/19	11/30/19	OOBP	9/28/18	9/30/19	RobotsNG	10/3/15	10/31/20	
HumpbWha		12/1/18	9/1/19	SupDogs	3/30/19		SupDogs	3/22/19			
AfricaAdv		9/30/19	9/30/19	TinyGian	6/30/18	6/30/20	HCBTD	8/17/96			
G3DNNW		6/18/14	9/30/19	A11FSE	5/17/19	5/17/20	GlobSoun	10/1/16	12/31/20		
TurtTale		9/30/19	9/30/19	DreamBig	3/1/18	9/1/19	A11FSE	5/31/19	7/18/20		
AMMM		9/1/18	2/6/20	ExtrWeat	2/11/17	12/31/19	AGWN	10/5/18	10/5/19		
Jerusalem		1/1/14	12/31/19	SFLIS	2/2/19	2/2/21	AmazAdve	11/10/17			
LITAOA		10/16/15		SupDogs	4/13/19		AMJ	9/7/18	9/6/19		
NPA		2/12/16	9/1/19	Vikings	10/13/18	10/1/19	Cuba	6/14/19	6/30/20		
A11FSE		5/17/19	5/16/20	A11FSE	5/17/19	5/16/20	GBRF	5/3/19	5/2/20		
Los Angeles CSC	AmazAdve	5/17/19	5/16/20	GBR3D	5/24/19	9/1/19	SupDogs	3/15/19			
	DreamBig	9/4/17	8/31/19	IncrPred	10/19/18	10/31/19	AGWN	1/1/19	1/1/20		
	A11FSE	7/15/19	10/31/19	Mummies	2/6/19	2/28/20	AmazAdve	8/1/18	8/1/19		
	SupDogs	3/15/19		TOTIA	12/1/18	12/31/19	SpacJunk	2/1/19	2/1/20		
	Volcanoes	1/16/19	7/15/19	Volcano	2/22/19	7/20/19	A11FSE	7/14/19	7/3/20		
	DreamBig	2/17/17	2/28/20	A11FSE	5/19/19	5/18/20	NPA	3/15/19			
	FON	6/18/15	7/2/20	AmazAdve	11/17/17	5/18/20	Pandas	3/15/19			
	Jerusalem	1/20/14	7/20/20	AMJ	1/25/19	1/24/20	SupDogs	3/15/19			
	MounQues	6/14/19	6/13/20	D-Day	2/19/19	2/18/20	WTM	4/1/19	8/31/19		
	Louisville KSC	PTJH	7/4/14	7/20/20	DreamBig	11/17/17	12/31/19	GBRF	3/16/19	3/15/20	
SupDogs		3/15/19		HumpbWha	6/17/16	12/31/19	A11FSE	5/17/19	5/16/20		
TA		2/1/16	7/31/19	NPA	2/12/16	12/31/19	AmazAdve	5/17/19	5/16/20		
TinyGian		9/21/17	9/30/19	TinyGian	11/15/17	11/30/19	NPA	3/4/16	3/1/20		
TOTIA		6/30/18	7/31/19	PlanPowe	2/9/19	2/8/20	PlanPowe	3/28/19	3/27/20		
WM		2/8/14	12/31/19	DreamBig	5/3/19	5/2/20	AMJ	2/1/19	8/1/19		
AMJ		7/6/18	7/6/19	GBR3D	1/30/19	1/29/20	DreamBig	6/2/17	5/30/20		
GBR3D		5/24/19	11/24/19	TurtOdys	9/27/18	9/26/19	Meerkats	6/1/18	12/31/20		
SupDogs		3/10/19		DreamBig	6/30/17	7/31/20	SupDogs	6/1/19			
Volcanoes		7/5/19	1/30/20	GCA	9/1/18	7/31/20	A11FSE	5/17/19	5/16/20		
Lucerne STM	A11FSE	5/24/19	8/18/19	HidUniv	5/2/19	7/31/20	AmazAdve	5/17/19	5/16/20		
	AMJ	9/1/18	9/1/19	HumpbWha	9/1/18	7/31/20	Dolphins	1/1/15	12/30/19		
	FMTT	5/25/19	8/15/19	NPA	10/1/18	7/31/20	Jerusalem	12/12/13	12/1/19		
	FMTT	8/25/19	9/26/19	TTA	6/1/18	7/31/20	JTTS	5/25/17	12/31/19		
	FON	11/1/17	10/31/19	A11FSE	5/17/19	5/16/20	MOF		12/31/19		
	Hurricane	12/18/18	8/31/19	AGWN	3/1/19	2/29/20	Animalop	10/1/17	10/1/19		
	NPA	3/17/16	9/1/19	AmazAdve	2/16/18	5/16/20	MOTUW	9/18/15	9/1/19		
	WildAfr	9/21/17	9/1/19	AOTE	1/26/18	1/31/20	OOBP	2/22/19	2/21/20		
	RightPill	8/23/12		BackWild	9/7/18	9/6/19	GBRF	2/15/19	6/30/20		
	McMinville	LITAOA	4/10/15	5/30/21	DinoAliv	1/26/18	1/31/20	HumpbWha	9/24/15		
SpaceNex		10/1/18	10/31/19	DSC	6/13/19	7/14/19	MOC	9/7/17	10/31/19		
TTS		1/1/19	12/31/19	FON	3/8/19	3/7/21	OOBP	3/9/19	6/30/20		
AmazAdve		9/15/17	9/13/19	OOBP	4/20/18	4/30/20	SupDogs	3/11/15			
AMMM		7/11/16		SupDogs	3/15/19		TurtOdys	12/7/18	12/6/19		
D-Day		5/1/19	7/31/19	TA	1/26/18	1/31/20	AmazAdve	2/16/19	2/15/20		
ExtrWeat		4/1/18	3/31/20	Volcanoes	10/13/18	10/12/19	GWS	6/1/19	6/1/20		
FON		8/1/19	8/1/19	WildAfr	1/26/18	1/31/20	SupDogs	4/15/19			
G3DNNW		4/11/19	4/10/20	WVDP3D	1/26/18	1/31/20	A11FSE	7/12/19	7/11/20		
Melbourne MV		MA	1/30/17	1/28/20	AfricaAdv	9/30/19		AMJ	2/16/18	2/16/18	
	Mummies	9/22/17	9/30/19	G3DNNW	6/18/14	9/30/19	BackWild	10/18/18	10/18/19		
	SOE	7/1/19	7/1/20	TurtTale		9/30/19	Cuba	1/18/19	6/30/20		
	SupDogs	6/1/19		G3DNNW	5/22/14	12/31/19	ExtrWeat	5/19/17	5/1/20		
	TinyGian	9/22/17	9/30/19	SupDogs	5/10/19		HidUniv	2/1/19	2/28/20		
	TOTIA	9/22/17	9/30/19	WTM	7/31/17		HumpbWha	1/1/19	2/28/20		
	Poznan CC	A11FSE	7/5/19	7/4/20	A11FSE	7/5/19	7/4/20	JTS	6/22/18	6/21/20	
		AMJ	9/1/18	8/31/19	AMJ	9/1/18	8/31/19	MA	8/14/18	8/13/20	
		Prague CC	Raleigh	Quantico	Raleigh	Quantico					

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
	MOC	5/1/19	11/1/20	Vancouver TWS	D-Day	11/7/15	11/13/19	Warsaw CC	TurtOdys	6/30/18	9/30/19
	MOTUW	3/1/20	3/20		GBRF	2/15/19	2/14/20		AfricAdv		9/30/19
	OOBP	6/7/19	12/31/20		GlobSoun	10/1/16	2/5/20		G3DNW	6/18/14	9/30/19
	RobotsNG	10/16/15	11/8/19		HumpbWha	10/9/15	9/1/19	Washington NASM	TurtTale		9/30/19
	SupDogs	3/15/19			NPA	2/12/16	9/1/19		A11FSE	5/17/19	5/17/29
	TinyGian	1/6/16	7/31/19		SupDogs	5/1/19			ACGOTS	5/26/17	5/25/20
	TTA	2/1/19	2/28/20		Volcanoes	11/17/18	9/30/19		DreamBig	2/17/17	2/16/20
Thessaloniki SCTM	WWDP3D	4/19/16	7/31/19	Vantaa	PTJH	1/27/17	1/26/20		JTS	3/6/15	
	DreamBig	10/28/17	10/2/19	Victoria DCI	ACGOTS	5/3/19	5/31/20		LITAOA	4/10/15	
	JTS	12/14/18	1/13/20		AMMM	4/16/18	4/15/21		SOTU	7/12/19	7/12/20
Tijuana	AGWN	4/12/19	4/11/20		ConqOTS	8/18/17	5/14/21		SupDogs	3/15/19	
	Cuba	10/15/18	10/14/19		Cuba	3/29/19	3/31/20	Wroclaw CC	AfricAdv		9/30/19
	GBRF	2/22/19	2/22/20		D-Day	7/1/17	7/1/19		G3DNW	10/4/17	9/30/19
	SupDogs	7/21/19			DreamBig	3/17/17	12/31/19		TurtTale		9/30/19
Toronto OP	ACGOTS	6/1/18	6/1/20		GBRF	2/15/19	2/14/20	Yellowstone	A11FSE	5/17/19	5/16/20
	SupDogs	7/1/19			IncrPred	1/16/18	1/30/19		GBRF	5/17/19	5/16/20
Toronto OSC	A11FSE	5/17/19	11/16/20		MA	11/24/17	4/15/21		Yell	5/1/14	12/31/20
	AmazAdve	10/6/17	11/16/20		OOBP	7/1/18	7/31/19				
	GBRF	2/15/19	2/14/20		SFLIS	9/22/17	12/31/19				
	JTS	10/15/18	10/15/19		SOE	9/11/18					
	SupDogs	4/12/19			SupDogs	5/1/19					
Toulouse CDE	A11FSE	6/1/19	12/31/19		Volcanoes	1/18/19	7/18/19				
Valencia Spn	A11FSE	7/1/19	6/30/20	Virginia Beach AMSC	BackWild	6/30/18	12/31/19				
	BackWild	4/1/19	6/30/20		OOBP	1/1/19	1/31/20				
	PlanPowe	1/7/19	6/30/20		SupDogs	5/15/19					

Key to Film Abbreviations

Film	Title	Year	Dist	Film	Title	Year	Dist
A11FSE	Apollo 11: First Steps Edition	2019		Niagara	Niagara: Miracles, Myths, and Magic	1987	DCI
ACGOTS	Aircraft Carrier: Guardian of the Seas	2016	3D	NPA	National Parks Adventure	2016	3D
AfricAdv	African Adventure 3D	2007	3D	OOBP	Oceans: Our Blue Planet	2018	3D
AGWN	Australia's Great Wild North	2018		Pandas	Pandas	2018	3D
AirRacer	Air Racers 3D: Forces of Flight	2012	3D	Penguins	Penguins 3D	2013	3D
AIWC	Adventures in Wild California	2000		PlanPowe	Planet Power	2018	3D
AmazAdve	Amazon Adventure	2017	3D	PTJH	Pandas: The Journey Home	2014	3D
AMJ	America's Musical Journey	2018	3D	RobotsNG	Robots	2015	3D
AMMM	Amazing Mighty Micro Monsters 3D	2016	3D	SeaMonst	Sea Monsters: A Prehistoric Adventure	2007	3D
Animalop	Animalopolis	2008	3D	SFLIS	Search for Life In Space, The	2016	3D
AOTE	Antarctica 3D: On the Edge	2014	3D	SOE	Story of Earth, The	2018	3D
Arabia	Arabia	2010	3D	SOTU	Secrets of the Universe	2019	3D
AsterME	Asteroid: Mission Extreme	2016	3D	SpaceNex	Space Next 3D	2015	3D
BackWild	Backyard Wilderness	2018	3D	SpacJunk	Space Junk	2012	3D
Bugs	Bugs!	2003	3D	SupDogs	Superpower Dogs	2019	3D
ConqOTS	Conquest of the Skies	2017	3D	TA	Tornado Alley	2011	3D
CRA	Coral Reef Adventure	2003		TinyGian	Tiny Giants 3D	2014	3D
Cuba	Cuba	2019	3D	TOTIA	Titans of the Ice Age	2013	3D
D-Day	D-Day: Normandy 1944	2014	3D	TSAB	To Space and Back	2017	3D
DinoAliv	Dinosaurs Alive	2007	3D	TTA	To the Arctic	2012	3D
Dolphins	Dolphins	2000		TTS	Touch the Stars	2019	3D
DreamBig	Dream Big: Engineering Our World	2017	3D	TurtOdys	Turtle Odyssey	2018	3D
DSC	Deepsea Challenge 3D	2015	3D	TurtTale	Turtle's Tale: Escape from Paradise, A	2013	3D
Everest	Everest	1998		VanGogh	Van Gogh: Brush with Genius	2009	3D
ExpChesa	Expedition Chesapeake	2019		Vikings	Vikings	2004	3D
ExtrWeat	Extreme Weather	2016	3D	Volcanoes	Volcanoes: The Fires of Creation	2018	3D
FightPil	Fighter Pilot: Operation Red Flag	2004	3D	WildAfri	Wild Africa 3D	2015	3D
FlyMons	Flying Monsters 3D	2011	3D	WM	Watermelon Magic	2013	3D
FMTTM	Fly Me to the Moon	2008	3D	WOTA	Wonders of the Arctic	2014	3D
FON	Forces of Nature	2004	3D	WTM	We, The Marines	2017	3D
FOTB	Flight of the Butterflies	2012	3D	WWDP3D	Walking With Dinosaurs	2014	3D
G3DNW	Galapagos 3D: Nature's Wonderland	2014	3D	Yell	Yellowstone	1994	3D
GBR3D	Great Barrier Reef	2018	3D				
GBRF	Great Bear Rainforest	2019	3D				
GC	Grand Canyon: The Hidden Secrets	1985					
GCA	Grand Canyon Adventure: River at Risk	2008	3D				
GlobSoun	Global Soundscapes 2016	3D	FIC				
GWS	Great White Shark	2013	3D				
HCBTD	Hearst Castle: Building the Dream	1996					
HiddPac	Hidden Pacific	2019	3D				
HidUniv	Hidden Universe	2013	3D				
HOTB	Hurricane on the Bayou	2006					
HumpbWha	Humpback Whales	2015	3D				
Hurrican	Hurricane	2017	3D				
IncrPred	Incredible Predators	2016	3D				
ISR	In Saturn's Rings	2018					
Jerusale	Jerusalem	2013	3D				
JMCSO	Jean-Michel Cousteau's Secret Ocean	2015	3D				
JTM	Journey to Mecca	2009					
JTS	Journey to Space	2015	3D				
JTTSP	Journey to the South Pacific	2013	3D				
Kenya	Kenya 3D: Animal Kingdom	2013	3D				
L&C	Lewis & Clark: Great Journey West	2002					
LITAOA	Living in the Age of Airplanes	2015					
MA	Museum Alive 3D	2016	3D				
Meerkats	Meerkats 3D	2012	3D				
MOC	Mysteries of China	2016	3D				
MOF	Magic of Flight, The	1997					
MOTUW	Mysteries of the Unseen World	2013	3D				
MounQues	Mountain Quest	2018					
Mummies	Mummies: Secrets of the Pharaohs	2007					
ND	Neelkanth Darshan	2005	unk				

Summer 2019 Bookings Count

#	Film	#	Film	#	Film	#	Film
63	SupDogs	7	MOTUW	4	PTJH	1	Animalop
54	A11FSE	7	WildAfri	4	SOTU	1	Arabia
40	DreamBig	6	AfricAdv	4	TOTIA	1	Bugs
31	NPA	6	FlyMons	4	TTS	1	ConqOTS
29	AmazAdve	6	GlobSoun	3	AOTE	1	CRA
26	AMJ	6	HidUniv	3	AsterME	1	ExpChesa
25	Volcanoes	6	MA	3	JTTSP	1	FOTB
22	GBRF	6	SOE	3	Kenya	1	GC
20	BackWild	6	TTA	3	Meerkats	1	HCBTD
17	OOBP	6	TurtTale	3	PlanPowe	1	HOTB
16	GBR3D	5	Dolphins	3	SFLIS	1	ISR
16	HumpbWha	5	HiddPac	3	SpaceNex	1	JMCSO
15	ExtrWeat	5	IncrPred	3	TA	1	JTM
13	Cuba	5	L&C	3	WOTA	1	ND
13	D-Day	5	Mummies	2	DSC	1	Pandas
12	G3DNW	5	RobotsNG	2	Everest	1	Penguins
11	JTS	5	WWDP3D	2	Hurrican	1	SeaMonst
9	AGWN	4	AMMM	2	MOF	1	TSAB
9	Jerusale	4	DinoAliv	2	MounQues	1	VanGogh
9	TinyGian	4	FightPil	2	Niagara	1	Vikings
9	TurtOdys	4	FMTTM	2	SpacJunk	1	WM
8	ACGOTS	4	GCA	2	WTM	1	Yell
8	FON	4	GWS	1	AirRacer		
8	LITAOA	4	MOC	1	AIWC		

Directory of Organizations Mentioned in this Issue of LF Examiner

Distributors' abbreviations are listed in **bold**.

<p>3D Entertainment Distribution Ltd. 3DED Ibex House 61-65 Baker Street Weybridge, Surrey KT13 8AH UK Tel: +44 20-7681-2357 Fax: +44 20-7681-2357 www.3DEFilms.com</p> <p>American Museum of Natural History Central Park West at 79th Street New York, NY 10024 USA Tel: 212-769-5000 Fax: 212-769-5233 www.amnh.org/imax</p> <p>Archipelago Films 2 Jackson Street Pleasantville, NY 10570 USA Tel: 914-862-4202 www.archipelagofilms.com</p> <p>Atlantic Productions Brook Green House 4 Rowan Road, Hammer-smith London, W6 7DU UK Tel: +44 20 8735 9300 Fax: +44 20 8735 9333 atlanticproductions.tv/</p> <p>BBC Earth Television Centre, 101 Wood Lane London, W127FA UK www.bbcearth.com/</p> <p>BIG & Digital B&D 8565 S. Eastern Avenue, Suite 158 Las Vegas, NV 89123 USA Tel: 502-212-1559 www.biganddigital.com/</p> <p>Blaze Cineworks LLC 10460 Roosevelt Blvd N., #180 St. Petersburg, FL 33716 USA Tel: 203-292-5745 Fax: 203-404-4998 blazecineworks.com</p> <p>Blue Sky Aerial & Specialist Filming Tärnösund, Tidö Vasteras, SE-725 92 SWEDEN Tel: +46-21-189597 Fax: +46-21-126810 www.bluesky.se/</p>	<p>Branson's IMAX Entertainment Complex 3562 Shepherd of the Hills Expressway Branson, MO 65616 USA Tel: 417-335-3533 Fax: 417-336-5348 www.bransonimax.com</p> <p>Camera Lucida Productions 89, rue Oberkampf Paris, 75011 FRANCE Tel: 33-1-49 29 51 90 www.camer lucida.fr/</p> <p>Canadian Museum of History 100 Laurier Street Gatineau, QC K1A 0M8 CANADA Tel: 819-776-7021 Fax: 819-776-7122 www.historymuseum.ca/visit/cineplus/</p> <p>Christie Digital Systems USA, Inc. 10550 Camden Drive Cypress, CA 90630 USA Tel: 714-236-8610 Fax: 714-229-7128 www.christiedigital.com/en-us</p> <p>Cineworld Group PLC Power Road Studios 114 Power Road, Chiswick London, London UK Tel: + 44 208 987 5000 www.cineworldplc.com/</p> <p>CJ CGV Co. Ltd. 602 Building, 2nd Floor Shinsa-dong, Kangnam-gu Seoul, 135-893 SOUTH KOREA Tel: +82-2-2112-6500 Fax: +82-2-2112-6599 www.cgv.co.kr/</p> <p>Cosmic Picture 64 Oxford Gardens London, W10 5UN UK Tel: +44-20-7792 1699 www.cosmicpicture.com</p> <p>Cosmic Picture Distribution CPD 108 Village Square, Suite 304 Somers, NY 10589 USA www.cosmicpicture.com/</p>	<p>D3D Cinema 516 Lincoln Ave Collingswood, NJ 08108 USA www.d3dcinema.com/</p> <p>David Clark, Inc. 7205 Oakridge Ave Chevy Chase, MD 20815 USA Tel: 301-907-9581 Fax: 301-907-9510</p> <p>December Media Distribution 476 Bourke Street Surry Hills, NSW 2010 AUSTRALIA www.decembermedia.com.au</p> <p>Definition Films Building #125 Trackdown 115 Lang Road Entertainment Quarter Sydney, NSW 2021 AUSTRALIA www.definitionfilms.com.au/</p> <p>Destination Cinema, Inc. DCI 3544 Lincoln Avenue, Suite C Ogden, UT 84401 USA Tel: 801-392-2001 Fax: 801-392-6703 destinationcinema.com/</p> <p>Digital Crossing Productions 14 Jerome Street Toronto, ON M6P 1H7 CANADA digitalcrossing.ca/</p> <p>Dorsey Pictures 10397 W. Centennial Road Littleton, CO 80127 USA Tel: 720-891-4835 www.dorseypictures.tv/</p> <p>Evans & Sutherland 770 Komas Drive Salt Lake City, UT 84108-1229 USA Tel: 801-588-1000 Fax: 801-588-4500 www.es.com/</p> <p>Fernbank Museum of Natural History 767 Clifton Road N.E. Atlanta, GA 30307 USA Tel: 404-929-6300 Fax: 404-378-8140 www.fernbankmuseum.org/</p>	<p>Field Museum 1400 S. Lake Shore Dr. Chicago, IL 60605-2496 USA Tel: 312-922-9410 www.fnmh.org/</p> <p>Foxfire Interactive Corporation FIC 500 East Washington St, Suite 30 North Attleboro, MA 02760 USA Tel: 508-699-6650 Fax: 508-699-6651 www.foxfireinteractive.com</p> <p>Franklin Institute Science Museum 222 North 20th Street Philadelphia, PA 19103-1115 USA Tel: 215-448-1200 Fax: 215-448-1332 www.fi.edu/</p> <p>Giant Screen Cinema Association 624 Holly Springs Road Suite 243 Holly Springs, NC 27540 USA Tel: 919-346-1123 www.giantscreencinema.com/</p> <p>Giant Screen Films GSF 1421 Sherman Ave, Unit 101 Evanston, IL 60201 USA Tel: 847-475-9140 Fax: 847-475-9145 www.gsfilms.com</p> <p>Grand Schema New York, NY USA</p> <p>Houston Museum of Natural Science 5555 Hermann Park Drive Houston, TX 77030-1799 USA Tel: 713-639-4600 Fax: 713-523-4125 www.hmns.org/</p> <p>Imax Corporation IMAX 2525 Speakman Drive Mississauga, ON L5K 1B1 UAE Tel: 905-403-6500 Fax: 905-403-6450 www.imax.com/</p>	<p>Imax Corporation 12582 West Millennium Drive Los Angeles, CA 90094 USA Tel: 310-255-5500 Fax: 310-255-5501 www.imax.com/</p> <p>IMAX Theatre Melbourne Rathdowne Street-Carlton Gardens GPO Box 666E Melbourne, Victoria 3053 AUSTRALIA Tel: +61-3-9656-8633 Fax: +61-3-9663-5554 imaxmelbourne.com.au/</p> <p>IMAX Victoria In the Royal BC Museum 675 Belleville Street Victoria, BC V8W 1A1 CANADA Tel: 250-953-4629 Fax: 250-480-4830 imaxvictoria.com/</p> <p>K2 Studios K2 880 Apollo Street, Suite 239 El Segundo, CA 90245 USA Tel: 310-524-9100 Fax: 310-524-1540 www.k2communications.com/</p> <p>MacGillivray Freeman Films, Inc. MFF PO Box 205 Laguna Beach, CA 92652 USA Tel: 949-494-1055 Fax: 949-494-2079 macgillivrayfreeman.com/</p> <p>Making Movies 195 Ponsonby Road, Ponsonby Auckland, 1011 NEW ZEALAND Tel: +64 9 921 5832 x1 www.makingmovies.co.nz/</p> <p>Milbrand Cinema 24780 Highland Way Los Gatos, CA 92033 USA milbrandcinema.com/</p> <p>Mirage3D Lekstraat 156 The Hague, 2515VZ NETHERLANDS Tel: +31-7-345-7500 www.mirage3d.nl/</p>	<p>Museum of Science and Industry 5700 S. Lake Shore Drive Chicago, IL 60637 USA Tel: 773-684-1414 Fax: 773-684-5678 www.msichicago.org/</p> <p>National Air and Space Museum 6th & Independence Ave. SW Washington, DC 20560 USA Tel: 202-357-1675 Fax: 202-357-1652 airandspace.si.edu/</p> <p>National Museum of Natural History 10th and Constitution Ave. NW Washington, DC 20560 USA www.mnh.si.edu</p> <p>National Museum of the U.S. Air Force Wright-Patterson Air Force Base PO Box 33624 Dayton, OH 45433 USA Tel: 937-258-1218 Fax: 937-258-3816 www.airforcemuseum.com/</p> <p>National Naval Aviation Museum 1750 Radford Ave, Suite B NAS Pensacola, FL 32508 USA Tel: 800-327-5002 Fax: 850-457-3032 www.navalaviationmuseum.org/</p> <p>National Science Foundation 4201 Wilson Blvd. Ste 885 Arlington, VA 22230 USA Tel: 703-292-8600 www.nsf.gov/</p> <p>Navy Pier IMAX at AMC 600 E. Grand Ave. Chicago, IL 60611 USA Tel: 312-595-0090 www.imax.com/chicago/</p> <p>nWave Pictures 4747 W Avenue L2 Quartz Hill, CA 93536 USA Tel: 818-565-1010 Fax: 818-565-1161 www.nwave.com/</p>
---	--	---	---	--	--

Directory, cont'd

Oceanic Research Group
PO Box 94
North Reading, MA 01864
USA
Tel: 978-664-9091
www.oceanicresearch.org

Omniversum
P.O. Box 30.313
Hague, 2500 GH NETH-
ERLANDS
Tel: +31 70 307 3456
Fax: +31 70 307 3450
www.omniversum.nl

Ouragan Films
La Marie Louise, Route de
Cazan
Pelissanne, 13330
FRANCE
Tel: +44-4 95 06 80 68
www.ouragan-lefilm.com

Productions Thalie
Quebec, QC G1L 2S8
CANADA
Tel: 418-694-3005
Fax: 418-694-1115
www.productionthalie.com

Regal Entertainment Group
101 East Blount Avenue
Knoxville, TN 37920 USA
Tel: 865-922-1123
Fax: 865-922-3188
www.regalcinemas.com

Royal British Columbia
Museum
PO Box 9815 Stn Prov Govt
Victoria, BC V8W 9W2
CANADA
Tel: 250-387-3701
Fax: 250-356-8197
rbc11.rbcm.gov.bc.ca/
index.html

Saint Louis Science Center
5050 Oakland Ave
Saint Louis, MO 63110
USA
Tel: 314-289-4400
Fax: 314-289-4420
www.slsc.org/

Saint Thomas Productions
Village d'Entreprises Saint
Henri
Rue Anne Gacon - Bat 301-
302
Marseille, 13016 FRANCE
Tel: +33 4 95 068 068
www.saint-thomas.net/

San Diego Natural History
Museum
PO Box 121390
San Diego, CA 92112-1390
USA
Tel: 619-232-3821
Fax: 619-232-0248
www.sdnhm.org/

Science World at Telus
World of Science
1455 Quebec St.
Vancouver, BC V6A 3Z7
CANADA
Tel: 604-443-7440
Fax: 604-443-7430
www.scienceworld.ca/

Scientific Center of Kuwait
Gulf Road
Salmiya, 22036 KUWAIT
Tel: +965-84-8888
Fax: +965-2571-0298
www.tsck.org.kw/

Sean Casey Productions
Los Angeles, CA USA

Sinking Ship Entertainment
4489 Chalmette Court
Port Orange, FL 32127
USA
www.sinkingship.ca

SK Films, Inc. **SKF**
Pinewood Toronto Studios
225 Commissioners Street,
Suite 303
Toronto, ON M4M 0A1
CANADA
Tel: 416-367-0440
Fax: 647-837-3350
skfilms.ca/

Sky-Skan, Inc.
51 Lake St.
Nashua, NH 03060 USA
Tel: 603-880-8500
Fax: 603-882-6522
www.skyskan.com/

Spitz, Inc.
700 Brandywine Drive
Chadds Ford, PA 19317
USA
Tel: 610-459-5200
Fax: 610-459-3830
www.spitzinc.com/

Statement Pictures, LLC
117 9th street, Suite 111
Brooklyn, NY 11215 USA
www.statementpictures.com/

Stephen Low Company
795 Carson Ave, Suite 6
Dorval, QC H9S 1L7 CAN-
ADA
Tel: 514-633-6036
Fax: 514-633-6035
www.stephenlow.com

Stephen Low Distribution,
Inc.
795 Carson Ave, Suite 6
Dorval, QC H9S 1L7 CAN-
ADA
Tel: 514-633-6036
Fax: 514-633-6035
www.stephenlow.com

Swedish Museum of Natural
History
Frescativagen 40 PO Box
50007
Stockholm, 10405 SWE-
DEN
Tel: +46-8-5195-5101
Fax: +46-8-5195-5100
www.nrm.se/

Trumbull Studios
PO Box 199
Southfield, MA 01259 USA
Tel: 413-229-0318
Fax: 413-229-8097
douglastrumbull.com/

Universal Cinema AMC at
CityWalk Hollywood
100 Universal City Plaza
Universal City, CA 91608
USA
Tel: 818-508-0711
www.amctheatres.com/

Warner Bros.
4000 Warner Blvd.
Burbank, CA 91522 USA
Tel: 818-954-6000
www.warnerbros.com/

Wild Expectations, Ltd
Peat House, Newham Road
Truro, Cornwall TR1 2DP
UK
Tel: +44-1736-796978
www.deeblestone.com

Wild Pacific Media
38 Driver Ave
Moore Park, NSW 2021
AUSTRALIA
Tel: +61-433 801 221
www.wildpacificmedia.com/

Classified Ads

POSITIONS

There are no positions open or sought at this time.

Classified Advertising

is accepted in the category of Employment. The rate for organizations to post job opening announcements is US\$0.50 per word.

There is no charge for individuals to post an ad in the "Positions Sought" category.

Insert advertising

puts your message in the hands of *LF Examiner's* hundreds of subscribers worldwide.

Advertisers provide their own pre-printed inserts that are placed in each copy of the newsletter.

For rates and our editorial calendar, please send e-mail to editor@LFExaminer.com or call 770-693-9755 between 9 a.m. and 5 p.m. Eastern time.

LF Examiner SUBSCRIPTION ORDER FORM

Enter my one-year subscription (8 issues) to LF Examiner for US\$447. (US\$497 outside North America.)
I understand that if *at any time* I am not completely satisfied I can receive a refund of my *full subscription price*.

☐ Bill me ☐ Check ☐ Purchase Order

Name (please print)

Company

Address

City

State/Province

Zip/Postal Code

Country

Phone number

E-mail address

LF Examiner • 1413 Eastbrooke Way, Marietta, GA 30066 USA • Tel: 770-693-9755 • orders@LFExaminer.com

SHORTS

GSCA's 2020 event sites

The **Giant Screen Cinema Association** has announced the sites of its meetings in 2020. Its 2020 Film Expo will take place in Los Angeles on March 9–10, with screenings at the **Universal Cinema AMC at CityWalk Hollywood** and meetings at Universal City Hilton, the same locations as the 2019 Film Expo. The meeting will feature screenings of new films, films in production, projects in development, and a technical session highlighting the latest giant-screen technology.

The association's 2020 International Conference and Trade Show will be held in Chicago, Sept. 22–24. On Sept. 25, GSCA will host a symposium focusing on strategies for theater sustainability and success. The **Navy Pier IMAX Theatre** will host flat-screen presentations, and the **Museum of Science and Industry** will host dome presentations in its Giant Dome Theater. The Sheraton Grand Hotel will serve as the official conference hotel for the conference and symposium.

The fall conference will feature screenings of new films, films in production, and projects in development; professional development sessions; a trade show; a technical session; the annual GSCA Achievement Awards, which recognize excellence in giant screen filmmaking, marketing, and lifelong learning; and the symposium.

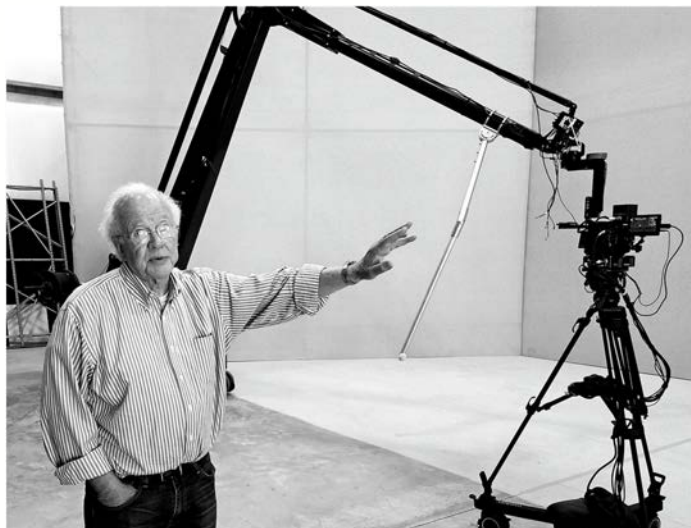
For more details, visit www.giantscreencinema.com.

Christie's new HDR projector

Christie Digital partnered with the Hayden Planetarium at the **American Museum of Natural History** in New York City to develop a new laser projection system that offers unprecedented contrast ratios of up to 20,000,000:1 (in ideal circumstances), compared to the nominal 2,000:1 of most conventional projectors. The new projector, known as Eclipse, was launched in mid-July at the Hayden, where the first

six prototype units are covering the 429-seat, 68-foot (21-meter) dome.

According to a release, "Christie Eclipse reproduces true blacks with bright star points without any unwanted residual light levels as well as simultaneous deep, rich, highly saturated colors that are unprecedented in a planetarium or display environment." The projector is capable of



Douglas Trumbull in his studio with his real-time compositing rig.

meeting the Rec. 2100 specification, which adds HDR to the Rec. 2020 spec, the highest current standard for cinema. (The color gamuts of both specs are the same.)

The projector achieves HDR by use of a technique called "dual modulation," in which light is bounced off of one imaging chip and onto a second imager before being sent out the lens and onto the screen. The effect of dual modulation is to multiply the dynamic ranges of the two chips. Two imagers with 2,000:1 ratios will output an image with a 4,000,000:1 ratio. The technique has been used in HDR televisions, in other planetarium projectors, and in the Dolby Vision projection system, which Christie developed for **Dolby Laboratories**. However, Eclipse was developed separately from Dolby Vision, and is not intended for the cinema market. As such, it is not DCI compliant.

In every other respect, Eclipse systems perform the same as conventional laser

projectors: they use the same Christie Mystique auto-blending and auto-alignment technology, and can be placed in any orientation needed for installation. One significant difference is that HDR is achieved at the price of double the power consumption for a given light output. That is, the production units, which will have a light output of 30,000 lumens, will use twice as much power as a conventional 30,000-lumen system.

Eclipse projectors will be launched commercially later this year. **Derek Threinen** of **D3D Cinema** tells *LFX* that they will be used in the third generation of D3D's three-projector laser system for giant-screen dome theaters, and available by the end of the year.

A visit with Doug Trumbull

Taking the opportunity of a month-long sojourn in western Massachusetts, the editor of *LF Examiner* paid a visit in July to the studio of special effects pioneer **Douglas Trumbull**, who

lives and works on 50 wooded acres in the Berkshire Hills.

Trumbull developed ground-breaking effects for such classic films as *2001: A Space Odyssey*, *Close Encounters of the Third Kind*, and *Blade Runner*, and directed *Back to the Future: The Ride* using 15/70 film. In the 1980s, he developed Showscan, which ran 5/70 film at 60 fps.

For nearly a decade Trumbull has been working on a digital 3D upgrade to Showscan, which he calls Magi. It captures and projects 4K images in native 3D at 120 fps. Each eye of the camera and projector runs at 60 fps, but the eyes alternate, so that the viewer sees 120 distinct frames every second. Trumbull calls this technique "cadence," and it has not been used in any previous 3D system. He made a short demo film in the format, *UFOTOG*, which he presented at the **Giant Screen Cinema Association** conference in Toronto in 2014 (see *LFX*, October 2014).

(see *SHORTS* on page 16)